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RESEARCH REPORT

DEFINITION OF A PROCESS FOR DETERMINING AN APPROPRIATE FORCE STRUCTURE FOR THE AIR ELEMENT OF THE AUSTRALIAN DEFENCE FORCE

WING COMMANDER PETER J. MCDERMOTT, AM, RAAF

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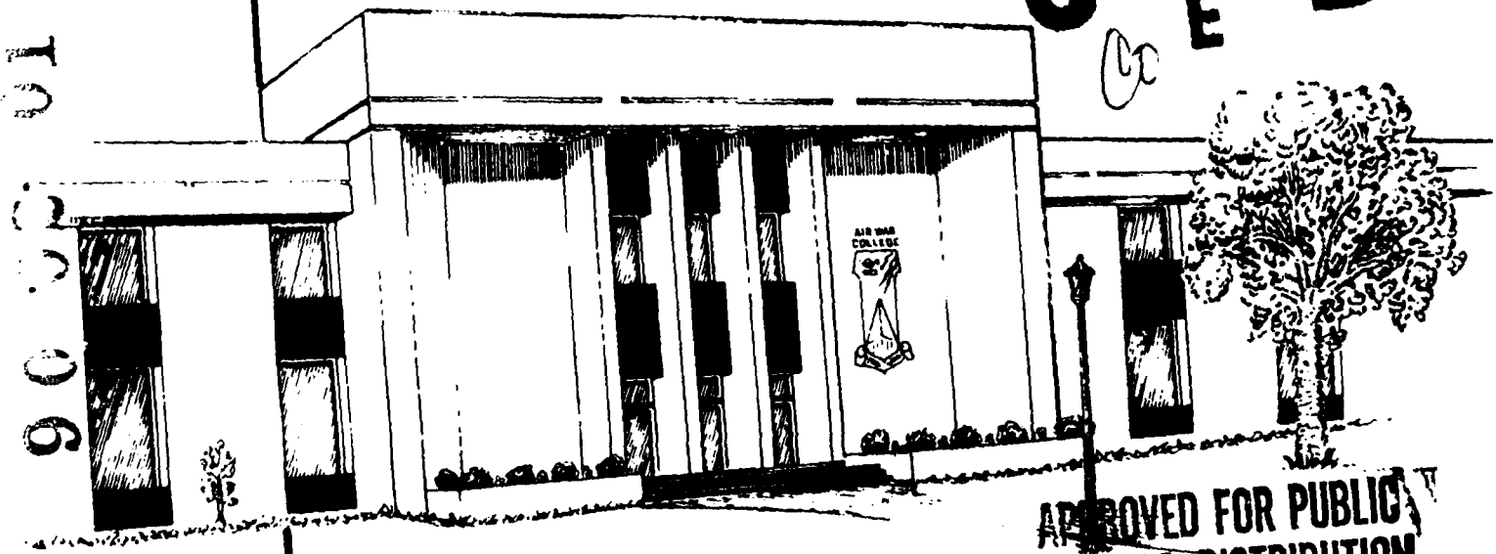

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DEFINITION OF A PROCESS FOR DETERMINING AN APPROPRIATE FORCE STRUCTURE FOR THE AIR ELEMENT OF THE AUSTRALIAN DEFENCE FORCE

by

Wing Commander Peter J. McDermott, AM, RAAF

A DEFENCE ANALYTICAL STUDY SUBMITTED TO THE FACULTY

IN

FULFILLMENT OF THE CURRICULUM REQUIREMENT

Research Advisors: Doctor David E. Albright, and
Colonel Bruce S. Goodhue

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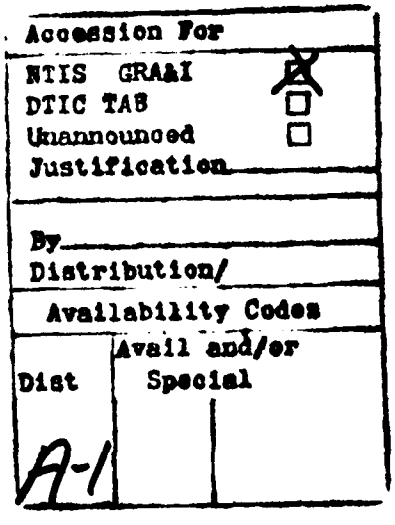

EXECUTIVE SUMMARY

TITLE: Definition of a Process for Determining an Appropriate Force Structure for the Air Element of the Australian Defence Force.

AUTHOR: Wing Commander Peter J. McDermott, AM, RAAF

Australia's unique defence and foreign policy environment and orientation defines the scope of the paper. An aim is introduced: ~~that of defining~~ a process for determining appropriate force structure for the air component of the Australian Defence Force. The strategic environment is used to illustrate the factors circumscribing policy formulation. An analysis of current doctrine and the defence policy environment follows, providing insight into the process of doctrinal development, and continues with a description of the current process and an assessment of the utility of current guidance and processes. A theoretical model of hierarchically-linked relationships between overarching defence objectives and subordinate components is proposed as an illustrative force structure process. An assessment is made of the model's ability to critically examine current and proposed air force structure with a view to determining its utility as the basis for a long-term plan. Directions for future development of the model, including suggestions for the definition of an agreed doctrinal development process, point the way to the future development of air power in the Australian context.

BIOGRAPHICAL SKETCH

Wing Commander Peter J. McDermott is a senior officer of the Royal Australian Air Force. He joined the RAAF as an Air Cadet in 1967. As a navigator he has flown P3B and P3C Orion Maritime Patrol Aircraft with the Royal Australian Air Force. He served on exchange duties with the United States Navy for two and a half years as a P3 instructor and computer systems manager. He has also served in a variety of instructional and staff positions in the Australian Department of Defence, including tours in the Air Force Air Staff and Materiel Divisions of Air Office.

Wing Commander McDermott is a graduate of Melbourne University (BSc), the RAAF Academy and the University of Southern California (MSSM). He was commended by the Secretary of the United States Navy for duties whilst serving with the USN. He was created a member of the Order of Australia in 1986 for services as P3 Navigator Training Flight Commander. He completed Air War College in 1989.

AWC DAS TOPIC SUMMARY ENDORSED BY RAAF CHIEF OF AIR STAFF

The Cross Report and the Dibb Report both highlight a deficiency in long-term planning for the ADF. Each has a solution to the problem. Solutions include, *inter alia*, disbanding single service operational requirements staff positions and FDA, and then centralising staff in HQADF, together with SIP components, under CDF. The solutions are also intended to resolve the military/civilian discord evident in planning processes.

The RAAF has an input into the current planning process. However, the input is neither co-ordinated within a long-range plan for air power nor sufficiently authoritative in shaping the force structure of the ADF. The former problem can be solely attributed to RAAF deficiencies: there is no long-range planning agency nor any documentation. Individual attempts at planning are not co-ordinated because of these shortcomings; nor is there an impetus pushing the many disparate RAAF planning/thinking areas in a single direction.

The latter problem is due to the extant process of Planning, Programming and Budgeting and the development of capabilities guidance. Despite cosmetic changes and recommendations by the respective reports, there is still no suitable long-range planning and guidance for air power that is authoritative and unifying. While the proposed changes are but one set of solutions to an enduring problem, there are other approaches and solutions to the challenge of defining a process for determining from national security objectives/policy, a future credible air power structure for the ADF.

Areas of potential conflict are: definition of the responsible agency for long-term planning of air power application by the ADF; the extent of, the authority for, and the coordination of planning for air power application; conflict resolution, for example, between military and civilian advice, and within budget management; and, defining a force structure that reflects national defence goals through air power doctrine.

A challenge in defining the process of planning would be a concomitant development of long-term goals and measures of effectiveness for RAAF Force Element Groups and the other ADF air power applications. The feedback process which could involve measurement of input and output of air power application would help refine the long-term planning goals, consistent with national security policy, as well as fine tune the planning process.

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CHAPTER ONE
INTRODUCTION

> The Government's policy of defence self-reliance gives priority to the ability to defend ourselves with our own resources. Australia must have the military capability to prevent an enemy from attacking us successfully in our sea and air approaches, gaining a foothold on our territory, or extracting political concessions from us through the use of military force.
>
> 1987 Defence White Paper[1]

Australia is essentially a single nation populated by peoples of largely European descent, occupying an island continent and sharing their borders with no other state. Their outlook is European, their orientation is Western, yet their geography places them uncomfortably in Asia. As inhabitants of a continent almost as large as the contiguous United States they are a largely urban population, with most people living in the relatively fertile southeastern corner.

The nation possesses considerable wealth in the form of natural resources, both agricultural and mineral, and has a well-educated, highly literate population. It is an industrialized nation with an economy that is becoming more service-oriented.[2] Although it is a middle-ranking trading nation in the world economy[3], it has the potential to become highly self-sufficient in most major commodities.[4]

The northern half of the continent is almost uninhabited (less than 500,000). The country is separated from its major allies, sources of supply, and major markets by great expanses of ocean. The land mass is largely underdeveloped, and the central part of the continent is a vast desert. While these geographic and economic attributes hinder the development of an adequate conventional defensive infrastructure, they also act as a barrier to any potential aggressor[5]. Nevertheless the great natural potential that this underpopulated country offers and the relative wealth that Australia enjoys provide a stark contrast to the problems faced by other regional nations.

This combination of great potential and realized wealth, of great distances and isolated communities, of a small population in a region of growing diversity and instability creates a unique problem for the planners of Australia's defence. What problems face the Australian military strategist? What is the size of the problem, and is it soluble? Let us turn first to the scope of the defence problem by discussing briefly the size of the area declared by the Australian government to be its area of military interest.

Australia's Area of Defence Interest

As a nation of only 16 million occupying the world's largest island, Australia claims an interest in an area of roughly 10 per cent of the earth's surface. This area stretches over a distance of 7,000 kilometres from the Cocos Island in the Indian Ocean to New Zealand and the South Pacific islands to its east, and over 5,000 kilometres from the Indonesian archipelago in the north to the Antarctic to the south. Within this area Australia has defined an area of direct military interest including Australia and its proximate ocean areas, Indonesia, New Zealand, and nearby countries of Oceania, including Papua New Guinea.

Australia also claims wider strategic interests in the region, including Southeast Asia, Indochina, and the Southwest Pacific and eastern Indian Oceans. While these areas are outside Australia's area of direct military interest, it recognizes that developments in these areas may impact upon Australia's security interests and that defence planning must take these developments into account.[6]

Scope of this Paper

Quite obviously, the scope of the problem facing the Australian Defence Force (ADF) planner is large: moreover,

the larger question of national security, with its economic, political, diplomatic, and strategic components, is even greater. Considerations of the wider aspects of national security, while forming the foundations upon which a national military strategy is based, cannot be adequately described in a paper of this nature. The amount of literature created in the last 10 years addressing the Australian defence debate is quite significant, although some will contend that more heat than light has been shed on the subject.

There have been two important government documents produced recently on the subject of Australian defence. They are: Review of Australia's Defence Capabilities by Ministerial Consultant Mr. Paul Dibb, and the ensuant white paper on defence, The Defence of Australia 1987. These documents have provided a focus for the Australian defence debate and have afforded a most useful and rational basis for the long-term development of the ADF, although these documents did not themselves address in any great detail the superordinate subjects of national security and national strategic assessment. While both documents have their critics, there is broad general acceptance, both nationally and internationally, for the new defence posture of greater self-sufficiency and regional leadership espoused in the White Paper.

The subjects of national security, and strategic defence outlook will be briefly discussed in this paper; however, to limit the paper's scope to a manageable size, the paper will concentrate, within the framework of a discussion of the defence debate, on the relationship between national military strategy and the development of the forces necessary to carry out that policy. Noting the great emphasis in the Defence White Paper on the capabilities offered by modern conventional airpower, this paper will address the contribution air power can make to the defence of Australia.

Specifically, the paper will describe a process by which the force structure of the air component of the ADF can be derived from endorsed national security and national defence objectives. The definition of such a process should be a useful contribution to the greater problem of deriving a long-term plan for the development of Australian air power.

AIM

The aim of this paper is to define a process for the determination of force structure for the air component of the Australian Defence Force.

OUTLINE

Chapter Two will use a description of the Australian strategic environment as a vehicle for addressing the objectives, boundaries and constraints that help to shape Australia's foreign policy and defence outlook. The influences of regional and extraregional political, economic, and geographic imperatives will be considered. An historical examination of the extant alliances will be addressed where these are relevant to Australia's current and future defence planning bases. An assessment will be made of the major foreign policy issues relevant to the Australian defence debate.

Chapter Three will discuss the environment in which major defence decisions are formulated, and will address concepts recently put forward as the bases for defence planning. The adequacy of current political guidance and the prospects for its incorporation in any future bipartisan political debate will be assessed.

Chapter Four will focus on the current process for determining force structure. Policy development will be examined, and the adequacy of this process for defence planning will be assessed.

In Chapter Five, the development of defence force policy and of force structure--the central issue of this paper--will be closely examined. A model will be proposed as an illustrative force structure development process, and its utility will be demonstrated by means of example. These examples will be representative of those contingencies that are likely to be faced by Australia. They will be sufficiently complex to illustrate the concepts embodied in the model.

Chapter Six will propose a detailed process for force structure development, using the proposed method of addressing capability shortfalls. It will also define a way of institutionalizing the model's capability process within the Australia Defence Department.

Chapter Seven will point the way to implementation of the model. It will propose concepts of objective-based defence activity, and it will illustrate the model's concepts of functional interrelationship by examining the inter-relationships of command and control for the conduct of joint and combined operations.

The paper will conclude with an analysis of the model's adequacy to address the issues faced by the long-term defence planner.

CHAPTER TWO
AUSTRALIAN STRATEGIC ENVIRONMENT

> Australia faces no identifiable direct military threat and there is every prospect that our favourable security circumstances will continue... There is no conceivable prospect of any power contemplating invasion of our continent and subjugation of our population.... It would take at least 10 years and massive external support for the development of a regional capacity to threaten us with substantial assault. But there are possibilities for lower levels of conflict--some of which could be very demanding--arising within shorter warning times.
>
> Review of Australia's Defence Capabilities
> Paul Dibb, 1986 [1]

Australia's current defence posture can be neatly summarized with the above words from the Dibb Report. The bases for the formulation of Australia's defence policy and forward planning are now, perhaps for the first time, firmly rooted in an endorsed national strategic posture. However, such reassurance as the Dibb and subsequent reports provides, is ephemeral and can only represent the *status quo*. We live in a changing world, traditionally marked by the rise and fall of great and small nations.

The development of defence doctrine and determination of defence force structure must thus be a dynamic process, deriving its impetus from an assessment of the strategic

environment and the threat it poses to national security. Before examining the derivation of the process of force structure definition, it is important to examine the factors that influence the process. Some factors will necessarily be transient; others will have a more enduring effect. Moreover, the process will be highly influenced by what has gone on before. This chapter will try to explain the historical effects on the formulation of Australian defence policy, and, after briefly examining the current strategic environment, it will provide some guidance on those enduring factors that will continue to shape Australian policy for the foreseeable future. The strategic bases used for the later development of proposed defence posture and force structure will be those currently endorsed by the Australian government and propounded in the 1987 Defence White Paper.

BACKGROUND

Australia's traditional military ties with Britain took a remarkable turn in 1942, when, after Singapore fell to the Japanese, Australia turned to the United States (US) for assistance with defence of the homeland.[2] This assistance was formalized when a security treaty joining Australia, New Zealand and the United States (ANZUS) was signed on 1 September 1951.[3] The ANZUS treaty only obliges the three signatory states to meet to talk about responses

to any of the acts specified in the treaty. There is no NATO-style "trip-wire" response implicit in the agreement; rather, the treaty provides for the broad framework of a consultative process and for the division of regional defence responsibilities. ANZUS thus provides no automatic assurance that the United States will come to the aid of Australia or New Zealand.[4]

A bilateral treaty between Australia and New Zealand has been extant since World War II (WWII) and has been updated many times.[5] This treaty is the vehicle for continuing defence cooperation between the two countries, especially since the ANZUS rupture in 1986, when the US unilaterally withdrew its security commitment to New Zealand.[6]

Debate on Australia's strategic environment has long centred on the notion of a lack of a credible threat. Since at least 1976 (the publication of the last important government document before the March 1987 White Paper) incumbent governments have not postulated the presence of a direct threat of military invasion to the Australian continent. The recent release of the Dibb Report (March 1986) and the 1987 Defence White Paper, with its emphasis on a self-reliant defence posture, have raised the level of sophistication in the defence debate, and they have

introduced a new national defence strategy incorporating the concept of, *inter alia*, "credible contingencies".

At the grand strategic level, the prospect, however unlikely, of global war between the superpowers has caused Australia to support the system of mutual deterrence under the US nuclear umbrella while simultaneously actively pursuing effective international arms control. At a regional strategic level, Australia's wider area of military interest, while displaying some discouraging trends, does not appear to present a direct identifiable threat to Australia's security in the short term. Nevertheless, given Australia's vast size, small population and low level of military expenditure, lower levels of defence contingencies could rapidly occur which would greatly strain the resources of the nation. The fundamental question in the Australian defence debate has now become this: what is the threat to Australian security, and for what level of credible contingency should Australia prepare?

This paper aims at addressing this problem in terms of describing a process for the definition of force structure within the boundaries of affordability and assessed risk to the nation. The fundamental question of providing an adequate Australian defence is difficult to cover in a single document. To limit the scope of the

discussion, this paper will concentrate on the analytic development of a long-term planning basis for a force structure for the air component[7] of the Australian Defence Force (ADF). The process it describes can be applied without variation to the total spectrum of Australian defence needs, and could, with modification of institutionalization details, be applied to any national defence process.

INFLUENCES ON STRATEGIC ENVIRONMENT

Factors affecting Australia's defence policy can be limited to three main areas: regional influences, historical factors, and, extant alliances--effectively a product of the first two. Australia's strategic basis is thus dependent on where she lives and in the way she relates to her neighbours. Regional international relationships of course have an effect, as do extra-regional influences; however, current defence policy limits the interest Australia takes in areas outside our region.

Asian and Pacific Regional Influences

Australia's area of direct military interest, in the words of the Minister for Defence, "identifies the area in which Australia must be able to exert--independently--

decisive military power".[8] Given the size of the task, this is no small order. The area of Australia's broad strategic interest, the area in which Australia seeks to maintain its interest and presence and the area of defence cooperation and greatest involvement in combined exercises and activities, covers one-quarter of the earth's surface, including all of Southeast Asia and the South Pacific.

The presence of the Association of Southeast Asian Nations (ASEAN) to the north has had a stabilizing effect on the Southeast Asia region. As a consequence of the Guam doctrine most ASEAN states (with the exception of the Philippines) have continued to maintain a progressive modernizing of their armament programs aimed at increasing their external defence self-reliance.[9]

Apart from the problems faced domestically by the ASEAN countries, there are two major threats to security in this region north of Australia: the continuing Vietnamese occupation of Kampuchea and the resultant threat to the area (particularly to Thailand), and the growing incursion of the communist superpowers, especially the Soviets and to a lesser extent the Chinese. The possibility of a solution to the Kampuchean occupation and a lessening of Southeast Asian tensions ironically raises the question of continued cohesiveness of ASEAN.[10]

Some member states of ASEAN face significant domestic problems. The continuing insurgencies in the Philippines, combined with growing economic difficulties,will continue to create difficulties for the beleaguered Aquino government. Indonesia's internal economic and overpopulation problems are important factors in that country's own internal security.

The micro-states of Micronesia, and Papua New Guinea not only face economic difficulties in an era of realignment of economic blocs, but are also suffering problems of sovereignty (fishing rights violations in Kiribati and Vanuata, and border incursion problems in Papua New Guinea). Continuing unrest in the South Pacific (Vanuata, Fiji, New Caledonia). These conditions plus the growing presence of the USSR in this region constitute areas of concern to both Australia and New Zealand.[11]

The increasing military rearmament of India, including the acquisition of an amphibious landing capability of battalion strength and the acquisition of a nuclear-powered submarine, raises questions of regional hegemony by the Indian government.[12]

Australian/New Zealand Defence Relations

The Australia-New Zealand shared defence relationship finds formal expression in the 1944 Canberra Pact and the ANZUS alliance (q.v.). Mutual feelings of kinship, coupled with a shared sense of regional defence responsibility, will continue to cement the relationship. The continuing level of defence cooperation, personnel exchanges, the conduct of combined exercises,[13] and the combined development of major defence projects such as the ANZAC ship program[14] auger well for the development of a shared regional defence posture.

The New Zealand Government regards close defence cooperation with Australia as a key element in its own defence strategy. The New Zealand Defence White Paper makes this point patently clear:

> The security of either New Zealand or Australia would be at serious risk if the other was seriously threatened and it is inconceivable that a joint response would not be forthcoming.[17]

Australia's published policy with respect to New Zealand is more circumspect. Apart from considering New Zealand as a partner in a shared responsibility towards the South Pacific nations and from generalized commitments to overall cooperation, it does not currently appear to incorporate New Zealand into its own broader strategic

outlook.[18] This lack of endorsed government support for a joint strategic posture may persist until the continuing impasse in relations between New Zealand and the United States over the visiting nuclear-capable ships issue has been resolved.

It makes eminent sense that both nations should work together in the development of their defence postures and force structures: Australia is well-placed to shield New Zealand from any aggression through the Asian area, and New Zealand is similarly well-placed to provide flanking defence. Resolution of the ANZAC ship debate may be the first chapter joint undertakings in this regard. Such developments as an international division of defence capability and a strengthening of command and control relationships, in the spirit of the successful Closer Economic Relations (CER) program between the two countries, are manifestly in the interest of both countries.

Australia's Relationship with the US--the ANZUS Alliance

For a variety of reasons, the maintenance of Australia's relationship with the United States is central to Australia's defence posture. But how durable is the (almost) 40-year-old alliance, and what factors are extant in this relationship?

Let us first examine pressures on the United States. The huge deficit inherited by the Bush Administration is likely to place severe pressures on the maintenance of US overseas commitments. A growing *detente* with the Soviets and a possible reduction in forces will ameliorate the problem, but not in the short-term. Some commentators[19] have suggested that the United States' overseas commitments are becoming unbearable, leading to calls, particularly on the Japanese, and some NATO allies for a increased burden-sharing.[20] Such calls do not necessarily indicate a reduction in the already low level of interest in Southeast Asia and the South Pacific, but rather a reorientation in US strategic thinking.[21]

Despite this possible reorientation in US thinking, and a possible shift of commitment to the Pacific Basin,[22] Australia no longer bases her defence posture on automatic US support.[23] Australian Foreign Minister Senator Gareth Evans speaks of a "double-jointed approach" in Australia's alliance with the the US. He has said:

> There is a defensible argument that Australia has gone some way to forging a two-pronged relationship: allegiance but simultaneously an insistence that it is not a total client attachment: that sovereignty will prevail, particularly in issues affecting the region. ... The model does not demur from Australia's staunch commitment to the US in the global context but it argues that, consistent with the alliance, we can claim the right to an independent view in terms of other defence and foreign policy goals.[24]

Defence Minister Kim Beazley was more pragmatic when he stated:

> What sort of aid can we expect from the United States if we are attacked? The answer is that we can expect to rely on intelligence, resupply and other assistance under virtually any circumstance, and our defence posture is based on that expectation. But we do not believe that we could reasonably base our defence posture on a demand for automatic combat assistance from allied armed forces where our survival is not threatened, and that is not presupposed in our defence planning.[25]

There is some irony in noting that the greater self-reliance Australia is building into her defence posture necessitates in the short-term a greater reliance on the United States for the supply of high-technology equipment, for training and for personnel exchange.[26]

There continues to be strong support in the Australian electorate for the alliance.[27] Moreover, the recent highly successful (for the ANZUS alliance) renegotiation of the US strategic intelligence bases in Australia indicated the confidence that the present government felt in electoral backing for its policy on ANZUS.[28] Based on past experience, such a policy is unlikely to change under a future conservative government.

Historical Factors

When President Nixon in 1969 expounded the Guam doctrine of national responsibility for regional defence, he was aiming his change in US strategic priorities at South Vietnam.[29] Nevertheless, Australia felt obliged to reassess its own defence preparedness and its expectations towards American responses under the ANZUS alliance. Australia began, belatedly and slowly, to place greater emphasis on the defence of continental Australia and on the creation of multilateral and bilateral ties with Southeast Asian states.

Yet the years that followed were also marked by an increased and wider level of defence cooperation with the US, still under the aegis of the ANZUS alliance. This includes the upgrading of US strategic defence facilities, a wide range of defence activities, exchanges and exercises, and closer exchange of military and other intelligence.[30]

Basis for Strategic Outlook

The key document that provides the foundation for the development of Australia's strategic outlook is the (classified) *Strategic Basis (SB)* paper, usually produced on a 3 - 5 year cycle. This document which draws on intelligence and other assessments, has to be endorsed by the Defence Committee before it can be applied.

The 1983 SB assessment is believed to be the one that has currently been accepted by the Government. SB 83 takes the view that, even with the support of a major power, any regional power will take at least 8 - 10 years to mount a major attack on Australia. But it does includes reference to, *inter alia*, the possibility of the emergence of more probable shorter-term credible defence contingencies such as harassment and raids on small settlements, shipping and other targets, particularly in Australia's north.[31] While these concepts may be self-evident, the real value of SB83 is believed to be its wide acceptance within the defence community as a credible regional threat assessment.

The relationships between strategic guidance provided by documents such as SB 83 and credible formulations of force structure are not so easily defined, for there st.ll does not appear to be widespread consensus about them. This central question of relationships between threat assessment and force structure will be revisited later in this paper.

AN ASSESSMENT OF FUTURE AUSTRALIAN OUTLOOK

An assessment of Australia's future outlook must include not only a consideration of the regional strategic relationships, discussion of historical factors and its

legacy of alliances, but also an assessment of regional and international economic pressures. Some academics have argued that the lessening of the world's military tensions will be matched by an increase in economic tensions as the superpowers, traditionally the United States and the USSR, and now the European Economic Community and Japan, continue their escalation towards the creation of economic spheres of influence.[32] Concurrently, developments in the Indian and Pacific basins suggest that in the long-term, the battle for power will be a four-way one between Japan, India, the Soviet Union (pursing economic rather than ideological and military ends) and an economically expansionist China.[33]

With the advent of the growing shift from bipolar East-West relations to a multipolar world based on collusive supereconomic blocs, Australia must look northwards to Southeast and Northeast Asia for its economic future. Continued involvement in the Five Power Defence Arrangement (FPDA) and a congruence of interests with the Southeast Asian states will reduce the reliance upon purely military methods of maintaining national security. The combination of rapidly expanding Asian economies and an overextended United States increasingly beset by economic difficulties will gradually reduce Australia's interdependence with the United States.

Within Australia, there may also be growing pressure for Australia's identification with regional groupings and assumption of a leadership role in its area of interest. Its involvement in the South Pacific forum and its dominance of Oceanic economies may be the vehicle for such leadership. Providing Australia can tread the fine line between regional eminence and a perception of patronizing neocolonialism (at least in the eyes of the smaller Oceanic states), it can play a useful role in the region. While Australia should not act as an US surrogate, it is in the interest of the ANZUS alliance and the wider Western alliance for Australia to exert leadership in this area. This role will not be without cost; however, the benefits in terms of regional stability and Australian national security will dictate continuance of such a policy.

To paraphrase the Defence White Paper, while the region of Australia's military interest is relatively benign, the developments that are likely to occur in this volatile region dictate that Australia prepare for credible threats to its security. Furthermore, such preparation will take place in an environment of a multitude of crosscurrents of economic and national security interests. In the absence of a pan-Pacific alliance, in the presence of growing economic interdependencies that cut across the region's traditional bilateral defence alliances, and in an

environment of fiscal restraint on defence spending, the necessity for a rational and realistic Australian defence posture is paramount.

CHAPTER THREE
AUSTRALIAN DEFENCE POLICY ENVIRONMENT

> The political object is the goal, war is the means of reaching it, and means can never be isolated from their purpose.
>
> Clausewitz
> On War[1]

INTRODUCTION

The publication of the Dibb Report and subsequent White Paper has proved to be a watershed in the development of an effective defence policy for Australia. Notwithstanding early concerns that the Dibb report foreshadowed a retreat to a continental defence, the Defence White Paper reversed Dibb's purely defensive posture. While not avowedly pursuing an aggressive air offensive capability, the government has at least accepted the concept of conventional deterrence and has presented a more balanced defence posture under the general rubric of self-reliance. Actions taken by the government have tended to back this wider spectrum of armed response, although budget pressures may force the slippage of air offensive enhancements and force multipliers.

The previous chapter examined the global and regional strategic influences that affect the formulation of

Australia's defence policy. How are these factors taken into consideration during the formulation of Australian defence policy? What is the relevance of the concepts currently espoused as Australia defence doctrine? What is the policy environment that creates defence doctrine?

This chapter will look at the process of the development of doctrine in the Australian context. We found in the previous chapter that it was useful to examine the background to the strategic environment in order to understand the strategic environment. This chapter will help us to understand the development of defence doctrine by considering the environment in which defence policy is determined.

Doctrine--A definition

The term doctrine is used throughout the ensuing discussion in its broadest sense--that is, in the words of the concise Oxford dictionary, as "a body of instruction". Later treatment of the formulation of military doctrine will employ an equally broad definition of that variant of the term.

The United States military defines doctrine as "fundamental principles by which the military forces or

elements thereof guide their actions in support of national objectives. It is authoritative but requires judgement in application."[2] Thus doctrine is not "holy words writ in stone," immutable and resistant to change, but a set of guidelines that, with the application of sound judgment, and in a rational environment can be used to produce rational and useful policy. Such rational policy at whatever level will of course extend the "body of instruction" and become doctrine itself.

Doctrine thus permeates all levels of written (and sometimes non-written) communication. In defence jargon, top-level doctrine may be described as grand strategy or, in modern terms, nation security objectives. A medium level of military doctrine may be operational contingency plans, and the lower level may cloak doctrine as unit tactical manouevring manuals or equipment publications.

There is nothing arcane in the use of the term doctrine, for, in the defence environment, it suffuses all forms of communication that describe the action to be taken in support of the overarching national security objectives of the state. It is critically important that every level of the hierarchy of defence organization be firmly related, via the agency of doctrine, to the higher level of derivative guidelines or fundamental principles, and that a

process be extant to review and revise such relationships. All parts must contribute to the whole, and each part must be logically related to that part from which it gains its nourishment.

Development of Australian Defence Force Doctrine

Let us now turn to the process used within the Australian Department of Defence for the formulation of ADF policy.[3] This analysis will begin by examining the major documents that form the pinnacle of defence doctrine, and the objections raised to the guidance as given by critics of the doctrine. There will be some detailed discussion of the major documents describing the current defence posture. This is designed to give the reader an appreciation of the factors and intellectual imperatives that continue to shape the formulation of Australian defence policy. Note, however, that the emphasis will be on the process--not the arguments *per se*, but the processes that gave rise to them.

DIBB REPORT

The Strategic Bases used by Dibb in his consultant's report to the Minister[4] have been described in Chapter 2. While the Dibb Report was essentially a herald to a wider review of Australian defence, it served two useful

additional purposes.

The first was to raise the level of the public's perception of defence issues. Traditionally, the development of defence policy has been a tightly-closed process, carried on in secret. A noted Australian defence writer, Dr. Ross Babbage, has said:

> In marked contrast to most Western countries, senior service and civilian officers rarely express their views publicly and in any detail on the broader issues of national security concern, nor does the Parliament hold regular or detailed committee meetings on the central issues of security policy.
>
> ...
>
> General operating philosophies, concepts, doctrines and a wide range of bureaucratic actions and inactions are consistently and effectively shrouded from public view.[5]

The publication of the Dibb Report did a great deal to help to open up the process to external scrutiny. For the first time in many years the formulation of defence policy was given wider exposure. From the standpoint of the Minister of Defence, who commissioned the study, it permitted the discussion in open forum of a wide range of defence options, and thus was widely seen as a "testing of the waters".

A second useful benefit that accrued from the report's publication was the highlighting of the differences between the service and civilian officers within the department of defence over the degree of responsibility for the defence planning, something that Dibb called "Institutional difficulties".[6] Ever since the 1974 reorganization of the Department, there have been entrenched adversarial differences between the Department (meaning the civilian officers) and the ADF (meaning the service or uniformed officers), particularly over the vexatious problem of force structure.[7] In this regard, Dibb's utility was effectively that of an outsider who could act as a facilitator between the opposing viewpoints provided the Minister by the Department and the ADF.[8]

Dibb's report highlighted that the major disagreement between the Department and the ADF concerned "the appropriate level of threat against which we should structure the defence force".[9] To illustrate the process that led to the later release of the 1987 Defence White Paper, let us first examine the central tenets of Dibb's paper and then, by analyzing the criticisms of that document, try to identify the bases for the subsequent White Paper and the changes in defence posture and force structure that followed.

The central thrust of Dibb's proposed basis for a national defence strategy was his "strategy of denial". He suggested "a layered strategy of defence within our area of direct military interest. In this scenario our most important defence planning concern would be to ensure that an enemy would have substantial difficulty in crossing the air and sea gap."[10]

A further tenet concerned levels of conflict (q.v.). Here he ascribed higher priority to more probable credible contingencies than to "more substantial conventional military action--but well below the level of invasion". He considered that differentiation between the levels could be accommodated within his concept of a lengthy warning time preceding the development of higher level of threat of conflict.[11]

The major criticism of the Dibb report, especially from the proponents of the application of conventional airpower, was that such a strategy of denial removed the option of offensive action from the arsenal of options available to the defence planner. As Dibb stated:

> A strategy of denial would be <u>essentially a defensive policy.</u> The distant projection of military power would have low priority. Rather such a strategy would seek to deny any putative enemy successful military operations in the sea and air gap surrounding Australia.[12]

Dibb's thrust, then, was to subordinate the strategic offensive capability which air power protagonists believe essential in an offensive defence posture. His review, while accommodating offensive air land-strike operations, nevertheless accorded them low priority.

The major argument against a denial operation is that it forces the ADF to conduct defensive operations along a broad layered front some hundreds of miles deep and potentially a few thousand miles wide. Such a front cannot effectively be defended with current or forces likely to be available to the ADF. Moreover, even if operations within the area of direct military interest can be geographically limited, then the ADF is forced into a policy of attrition. That is, it must attempt to destroy enemy forces not at their bases, ports and marshaling area, but in a wider sea-air gap enroute to Australia. Such a policy could be very costly to a small force such as the ADF.

The value of offensive operations in pursuing an effective national security policy flows from the following advantages. Offence provides the benefits of surprise and initiative, it diverts an enemy's resources from that enemy's own offensive capacity, it destroys the enemy's offensive assets and defence infrastructure, and, most important, it provides a deterrent function.[13] An

offensive capability is a necessary condition for effective deterrence, but, in the absence of declared and manifest will to use that capability, is not a sufficient capability.

With respect to the offensive capability conferred by the ADF's long-range land-strike force of F-111 aircraft, Dibb went as far as to oppose any upgrading of the F-111 fleet.[14] The implications for an endorsement of a defensive posture, with a proposed diminution of the ADF's offensive air capability, were plain.

DEFENCE WHITE PAPER OF 1987

In its preface, the 1987 Defence White Paper re-affirmed the government's intention to proceed with a self-reliant posture and an enhanced defence capability. The concept of giving priority to credible contingencies in Australia's direct area of military interest was endorsed, as was the concept of denial to the adversary of the sea-air gap. However, the concept of offensive air action was also supported in the event of a deterioration in strategic circumstances. The White Paper provides a summary judgement: "There would be a greater need for strike and other offensive measures against the adversary's military bases and infrastructure ... ."

Perversely, against this endorsement the Minister later stated in a speech in his home state of Western Australia in 1987:[15]

> Indeed, development of high-level capabilities, like long-range land strike, at the expense of lower-level capabilities ... may in fact make a low-level conflict more likely by weakening our capability to respond with credible levels of force to a low-level attack and thus weakening deterrence at that level.

Despite this warning, however, he continued:

> Our fundamentally defensive posture in no way limits our forces to defensive tactics and operations ... . Our defence posture envisages aggressive deployments of a wide range of forces to meet a threat at the time and place of our choosing, within the political constraints of an escalation. Moreover, our capacity to meet force with force aggressively is important in <u>deterring</u> (emphasis added) escalation by an opponent.

Since the publication of the White Paper the government has announced that the ADF will acquire, *inter alia*, a substantial avionics and sensor upgrade for the F-111 force, an enhanced submarine force, and the commencement of a new frigate building program. Together with the continuing build-up of the F/A-18 fleet and the enhancement of the P3C Maritime Patrol Force, the ADF can now provide the defence planner with sufficient tools to "meet force with force aggressively." Furthermore, the force multipliers that Air Force planners have long maintained to

be an essential part of an integrated basis for Air Force development--namely, an in-flight refueling and AEW&C capability--have been announced for acquisition.[16]

Thus the currently endorsed posture now appears, in the Australian jargon, to have "two-bob each way," with a strategy of denial backed by increased numbers of weapon platforms to police the gap, and a capability to mount offensive air operations designed to provide a deterrent capability. But a final word on national will may be warranted.

While offensive air operations conducted against an aggressor's infrastructure may be highly effective as a means of waging war, there are political considerations associated with their use. The current Air Officer Commanding Operational Command, and Air Commander Australia, Air Vice-Marshal E.A. Radford, has stated that such operations may be "proscribed by political or other tactical considerations.",[17] Such arguments have been used by proponents of a defensive ADF posture to counter claims of the efficacy of offensive air operations.[18] They argue that the ADF could never rely on an Australian government being willing to endorse pre-emptive strikes.

Critics of the Dibb paper considered that such argument was specious. They countered that the ADF is there to serve the government, and must represent the government and the people's will. The argument was that if it was the considered professional opinion that offence was the best form of defence, then offensive action must form part of the arsenal of strategic options available to the defence planner.

Supporters of the retention of an effective offensive air capability point out that the dangers of conducting an attrition campaign for a small force such as the ADF are too great for the option of offensive air action to be circumscribed. They believe that the deterrent action provided by offensive air capability, if it prevents war, is a highly-effective and inexpensive capability. Moreover, if actually carried out in time of conflict, an offensive air strike campaign would reduce the risk to one's own forces by carrying the war to the enemy at the time and place of one's choice. Advocates of airpower argue that, although Australia maintains a non-offensive defence posture, that posture should not preclude the threat of offensive action should the tragedy of war come to pass.

Airpower supporters argue that the following is germane. Deterrence has two components, capability and will. A benign strategic outlook necessarily engenders a benign view of military action. The threat of armed conflict involving Australia (or any other country) must surely have the effect of galvanizing national will behind the application of military power. National will can be strengthened almost overnight; the creation of an effective offensive air capability takes years. It is most imprudent for a defence planner to disarm himself of his strategic deterrence capability because he currently doubts the adequacy of the will part of the deterrence solution.

The argument in support of the maintenance of an effective offensive air strike capability was strengthened with the publication of the Defence White Paper which restored the government's commitment to upgrade the F-111 fleet (the F-111 upgrade may cost over $220 million for the first stage of improvement, and similar amounts for other development). The response to public criticism of the diminuition of the strike force was an important difference between the Dibb Report and the White Paper, and appeared to vindicate the power of public involvement in the process. The action taken by the government could thus be seen as a demonstration of its will to use the deterrent capability offerred by the F-111 fleet.

REORGANIZATION OF DEFENCE MANAGEMENT

The preceding discussion in this chapter has centred on the evolution of current strategic guidance and national security objectives as it relates to the development of defence force structure. What of the relationships between these factors? What other factors shape the development of defence force policy?

It is important to understand the environment in which defence force policy is made, not only for deciding how to apply the airpower but for developing that policy at the second level, i.e. for developing doctrine that is generally called defence force management.

The application of airpower will be examined more closely under the rubric of Command and Control. Here I will limit treatment of the defence policy environment to a discussion of defence force management.

The Management of Australia's Defence - the Cross Report

In November 1987 a major bipartisan committee of the Australian Parliament, the Joint Committee on Foreign Affairs, Defence and Trade (JPCFADT), presented a report to the Australian Parliament titled The Management of

Australia's Defence.[19] This report, commonly called the Cross Report,[20] is important because it was the first major parliamentary contribution to the defence debate for some time. Its greater utility lies in the fact that it addressed a wide range of topics, building upon the initiatives of the earlier Dibb review and the Defence White Paper.

Two particularly useful aspects of the Report were its analyses of the adequacy of the Department to properly manage the decision-making process, and the adequacy of the ADF's command and control system. As the report stated:

> if the broad policy prescriptions contained in the White Paper are to be implemented successfully, the capacity of the Defence higher organization to carry out its role is crucial.[21]

The scope of the report and the number of its recommendations precludes a complete analysis. Here I will concentrate on the some of the defence decision-making and command and control issues addressed by the committee.[22]

On the issue of defence management and decision-making processes the report had two major concerns with current practices.[23] First, the committee sought to increase the degree of political involvement in the decision-making process by reducing the role of the

secretive bureaucracy in the development of policy and making the process more open. Such a step would of course allow greater political involvement not only of the Minister but, under the Westminster system of government extant in Australia, of the parliament as well.

Second, the committee noted that, because of the size and complexity of the process (the Defence Department is, in terms of staff, by far the largest Commonwealth government department), centrifugal forces overcome efforts to integrate functions. It felt that increased integrative effort should be applied at the top, by the Minister, the Secretary, or the Chief of Defence Force (CDF). It further observed that a number of factors mitigate against such integration: inadequate bureaucratic support, inadequate guidance on basic strategic goals, and an inadequate information base.[24]

In classical management terms, the criticisms were: that the organization lacked corporate goals, that no one organizational group was in charge, and that the system lacked objectivity in that it was input- and process-oriented with no method of measuring output against objectives. Of course, such criticisms are often applied to the military and other large government bodies. Defence forces are not profit-making bodies with their concern for

the "bottom-line." However, these criticisms do point out the necessity for the establishment of organizational goals, methods of matching objectives to resources, and systems to provide feedback.

The report also concluded that the process for the development of national security objectives was inadequate, and recommended that wider inputs such as societal, economic and technological trends should be incorporated into the process. In so recommending, the report considered that:

> The Department of Defence should not be the prime mover in the preparation of national security policies and objectives .... the government of the day should set national security goals and objectives, making determinations on the basis of an independent analysis and review of options put forward by participating interests .... the defence establishment should concentrate more on determining the means of achieving the goals that are set for it.

Such a pluralistic approach would take much of the process of determining defence policy out of the department and put it firmly in the public purview. Doubtless the (parliamentary) report saw a greater role for parliamentary involvement in the process.

The necessity for a nationally-endorsed and accepted policy is generally acknowledged, and the White Paper is a

welcome step in this direction. However, it concentrates on force structure and, like the preceding Dibb report, fails adequately to address the wider issue of national security. To fill a similar gap in US policy, the United States government has recently started to publish an annual document for public dissemination which promulgates the nation's national security strategy and objectives. The document is both descriptive and prescriptive.[25] Such a publication in Australia would be a most useful contribution to the development of agreed national security and defence policy and would meet the Cross Report's call for a "comprehensive planning document which provides defence planners with detailed guidance on ... strategy ... tasks and objectives (and) ... constraints on the development of defence policy."[26]

On the subject of organizational effectiveness, a telling commentary on the efficacy of the current planning programming and budgeting system (PPBS) used by the Department for long-term defence planning is summed up in this finding:

> The committee is concerned that in the fifteen years since it first introduced the PPBS ... defence has not conducted a detailed and integrated analysis of the process(es) which make up the system. This is despite the fact that successive inquiries ... have identified significant and consistent weaknesses and deficiencies associated with the process.[27]

The second major area of interest in the Cross Report concerned command and control arrangements, under the general rubric of determining a more fully defined higher defence organization. The committee made a large number of recommendations, largely focused on responsibility for policy development and planning. It held that many of the deficiencies and weaknesses flow from the current CDF/Secretarial diarchic split of responsibility. A discussion of these issues will be addressed in Chapter Four, as will the Ministerial response to the initiatives in the report.

COMMAND AND CONTROL ENVIRONMENT

A final, and some would say critical, restructuring of defence force management involves the overhaul of the defence command and control (C2) structure to match the new self-reliant defence force posture. The Dibb review, endorsed by the White paper gives this area high priority. A major reassessment has been directed by the Chief of Defence Force (CDF), and has now been completed by Brigadier J.S. Baker[28]. The following paragraphs are based on information taken from the Baker report to CDF. A number of its recommendations are in the process of being put into place, and I will point out as appropriate where action recommended by Baker has already been taken.

A New ADF Command and Control Structure: The Baker Report

With the introduction of a self-reliant defence posture, there has been a substantial rearrangement of Australia's military C2 structure. This rearrangement, moreover, continues to evolve. The CDF, as the senior Australian military officer, has been vested with the command of all Australian defence forces. Normally CDF's command is exercised through three joint commands--Maritime, Land and Air; however, a senior operational commander--the Commander Joint Forces - Australia--will be designated for more substantial conflict. He will be responsible to the CDF for the planning, conduct and coordination of operations by the Joint Force Commanders. The three service Chiefs of Staff are no longer in the chain of command.[29] The Maritime and Land Commanders are responsible, respectively, for Maritime and Land Operations; the Air Commander is responsible for national air defence and strategic air tasks, and for providing support for the other two Commanders. Such an arrangement is supposedly designed to ensure that unity and cohesion in the application of air power is preserved. (Note that such changes as have been initiated are only the first step in the evolution of an adequate C2 process to support the new defence posture.)

The report indicates that the current system of C2 is probably inadequate, even before the change to a self-reliant policy. Moreover, the provision of decision support systems (DSS) to complement the C2 system is not only overdue, but will require considerable effort to produce, even if the C2 system were adequately defined. The report indicates that shortcomings in both the C2 system and DSS:

> will diminish the effectiveness with which available combat assets can be applied in operations ... . evolutionary development is likely to occur over time, but such processes may be disjointed, would be slow, and involve considerable nugatory effort."[30]

Like the Cross Report, the Baker Report identifies the necessity for a well-defined process relating military strategy to operational concepts. Under the general aegis of the definition of an adequate C2 system, such a process is defined in this report to an extent not seen before in an unclassified document. (The concepts described in the report will be further discussed in Chapters Five and Six as examples of a proposed force structure process.)

Baker indicates that there are difficulties in defining an adequate C2 system in the absence of specific scenarios. He points out that, in the absence of well-defined threats, the defence planner is tempted to allow his

planning to be limited to generalities. Such generalities, however, serve no useful purpose other than as textbook theory. Even though there is admittedly a synergistic relationship between specific scenarios and the allocation of operational control, and even though it is difficult to determine the precise nature of operational control without knowing the nature of the environment into which ADF forces may be committed, an attempt must still be made to lay general guidelines for the structure of forces in sufficient detail to allow for adequate forward planning. The level of complexity required to plan for and conduct joint exercises, often under heavy pressure of time to meet specific contingencies, requires that much of the overall planning, especially in the critical field of assignment of forces and designation of command and control arrangements must be made well ahead of the actual conduct of contingency operations.

The Baker plan, while providing an excellent assessment of the problems involved in defining an adequate C2 structure and procedures for the allocation, assignment and employment of forces, does not provide answers in sufficient detail for the definition of a new force structure. Indeed the study itself sets its aim only at recommending areas for further development to meet present and future ADF command requirements.

Analysis and Assessment of Baker Plan

Whilst the concept of unity of command for the CDF is well-accepted, there is considerable uncertainty regarding the division of responsibility between the joint commanders, the arrangement for unity of command in operational areas, and, perhaps most important, the allocation and control of scarce multi-role assets, particularly those of the air component of the ADF. Indeed, apart from certain specialized tasks, much akin to those of the United States' prime specified command--the Strategic Air Command--the role of the Air Commander boils down to being only a provider of resources. The report itself states:

> A central issue in the Defence of Australia, if not the critical issue of the C2 arrangements, will be the effective use of air .... It revolves essentially to the balance to be struck between highly centralized control of air assets under the Air Commander and the needs of the other operational level commanders.[31]

Acknowledging that the strongest characteristic that airpower offers is one of flexibility, and that demands for air will always exceed resources, the report reinforces the long-accepted axiom of centralized control of air assets. It indicates that the Air Commander will to a certain extent be protected in the allocation of air assets in that he will be directed by CDF (advised by the Joint Commanders and the CDF-chaired Chiefs of Staff Committee (COSC)).

The report goes as far as to state that "assets should only be assigned under command or even under operational control (emphasis added) only where the situation is such as to preclude the Air Commander providing the required support by less binding arrangements". Such a sensible recommendation takes heed of historical lessons of the effective use of air power.[32]

While the above discussion is more suited to a paper dealing with the effective use of air power in the Australian environment rather than one examining the definition of force structure, the processes illustrated are pertinent. In fact, the definition of an adequate C2 system for the ADF is itself a prime component of the ADF force structure.

The Baker Report is a most useful document. It exposes the issues, particularly those associated with the allocation of air assets; it goes a long way towards defining the relationships between strategic objectives and operational-level planning imperatives; and it provides the framework for further development of the concept of joint operations in the Australian setting. We will return to the Baker Report later as there are further important force structure determinants in it that deserve to be mentioned.

ADEQUACY OF GUIDANCE

Since 1985 there has been a more open discussion of defence issues, and while the government has rejected Cross' call for greater political involvement in the defence process, many of his recommendations, including those that called for improvements in the force structure definition process, have been accepted. The publication of an unclassified version of an internal document relating to C2 development (the Baker Report) for public consideration and discussion has been helpful as well. While the defence planner may wish for more adequate planning criteria and a more specific definition of the threat, he must accept that he will probably receive no further guidance. Moreover, the defence planner cannot expect the luxury of another Dibb Report for some time.

There is a fair degree of unanimity between the two major Australian political parties on the issue of defence.[33] The major differences appear to be the level of demonstrated Australian support for ANZUS, the level of presence in the region, the desirability of providing inflight refueling for the F-111 fleet, and the necessity to retain an armoured and an amphibious capability for the army. None of these represent a major variance from the broad principles endorsed by the Labour government.

CHAPTER FOUR
AUSTRALIAN FORCE STRUCTURE POLICY DEVELOPMENT

> The men who set the agenda, chair the meetings and write the minutes afterwards are powerful men, and the most powerful men are those who do all three.[1]

The preceding chapter described the environment that shapes Australia's overall defence posture. It analyzed the flaws and shortcomings of the system and set the stage for a discussion of the processes that lead to the formulation of defence policy. This chapter continues the discussion by examining the extant process of the definition of force structure within the Australian Defence Department. The chapter will give the reader a useful insight into the difficulties faced by a defence planner in attempting to change force structure.

DEFENCE POLICY DEVELOPMENT AND THE FYDP

The Five Year Rolling Program

The heart of the process for the development of doctrine and the management and administration of the ADF is the Five Year Rolling Program (FYRP).[2] The annual exercising of this behemoth results in the annual production of the Five Year Defence Program (FYDP). Both creatures have their genesis in the Programming Planning and Budgeting System (PPBS) created by Secretary Robert McNamara in the US

Department of Defence during the early 1960s. The process aims to provide systematic allocations of funds for the major components of the Defence budgetary process, viz., new capital equipment, operating expenses, manpower costs, and facilities (buildings and works).[3]

The PPBS process is designed to be an input-output process, whereby strategic bases and national security goals form the input and the provision of defence security in the form of defence hardware and the trained manpower to operate it forms the output. A series of senior Defence committees administers the process, allocating resources as required to match commitments to extant or planned activities and capabilities.

Defence FYRP Committee Process

Two senior Defence committees provide the Minister with high-level advice on the setting of priorities within the context of the PPBS. These are the Defence Force Development Committee (DFDC), the highest level (in peacetime) departmental committee, and its advisory committee the Consultative Group (CG). Two other committees, the Force Structure Committee (FSC) and the Defence Operational Concepts and Capabilities Committee (DOCCC) (to be discussed later), are involved in the setting

of priorities for new acquisitions.

The CG is at Deputy Chief of Staff level. Its major function is to lay out the broad priorities for resource allocation--i.e., the balance between the major funding groups (personnel, facilities, operating costs, and capital equipment). The DFDC functions as the executive, referring unaccepted proposals back to CG for refinement and resubmission.

Both committees are chaired by civilian officers of the department. The Secretary (the highest-level departmental officer, at the same level as the CDF) chairs the DFDC, and staff from his civilian divisions provide the Secretariat (writing agenda and minutes of meeting). The CG is chaired by one of the three Deputy Secretaries (at the same level as each of the three Chiefs of Staff); again the civilian organization provides the Secretariat support.

Both committees, in a two-pass process, provide government with advice on fund allocation. The Minister argues his case for departmental funding in Cabinet for budget allocations. Apart from an overall planning process of three year forward estimates, the Government process in general does not use the Defence Department's five year rolling program.

Responsibility for the development of force structure has traditionally been the preserve of the FSC. This committee, chaired by the same civilian departmental officer who chairs the CG, considers variations to Defence force structure. Effectively, this means that it examines all proposals for major new equipment, and assigns priorities for their introduction by allocating a year of decision for their approval by the government.

The Defence Operational Concepts and Capabilities Committee (DOCCC), chaired by a military officer, the Vice-Chief of Defence Staff (VCDF), has recently been established to examine the wider ramifications of force structure. Apart from the Chiefs of Staff Committee (COSC), which is chaired by CDF and is a purely advisory body, this is the highest level peacetime committee under the control of a military officer.[4] In addition, a Force Development Planning Branch has been established within HQADF to support VCDF in his planning responsibilities.

The Process in Operation

As in most large organizations, there is a differentiation between avowed and actual processes, and the reality of the process in operation is somewhat different than the theory. Traditionally, government input into the process has been almost exclusively financial in terms of a

fixed percentage of Gross National Product (GNP). The current goal, defined in the 1987 Defence White Paper is 3%; however, this figure has yet to be reached.[5] Nevertheless, for many years the FYDP process has continued on the assumption that later years of the FYRP will provide the necessary funds. The problem, then, becomes one of prioritization. A necessary trade-off occurs between the level of funds available and the risks associated with level of Defence spending, particularly in the acquisition of capital equipment.

For the process of resources allocation (CG/DFDC), time is necessarily short, and the system is cumbersome and highly reactionary. Agenda, briefs and draft minutes are issued with little time for reply or preparation of briefs by staffs, and broader issues receive peremptory discussion. In essence, the process requires that staff prepare resource bids against guidance; however, the usual process is for last year's achieved expenditure to be bid again but modified by the level of major equipment expenditure for Year One, with variations for changes in real (that is, after inflation is taken into account) defence spending. The process of financial and resource management has, by the effective process of setting financial controls on the organization, become the control system of the organization.

For long-term planning, the PPBS has become myopic. The system is intrinsically flawed in that, because of Australia's constitutional guidelines, no government can commit funds further ahead than one budget year. To allow for payment for weapon systems that require payments spread out over a number of years, the usual process is to provide for (long-term) obligated funds with no legal commitment, and then, as the year of expenditure approaches, to provide for funds in the budget process. Such an approach provides the basis only for a single-year budgetary system, and two classes of major equipment proposals are created--those that are already under way, and for which funds must be found in successive budgets, and those that compete for selection in the next budget as Year One proposals, and are thus relatively sure of funding.

Short-term pressures on the budget, often created by actual cost variations for approved projects already under way and other budgetary pressures inevitably produce distortions of the process, and even high-priority equipment proposals find themselves slid backwards or have their expenditure patterns flattened to accommodate the inevitably reduced funding levels. Essentially, within the department, for major new equipments not yet in the budget, the PPBS process has become a shopping list, with the years of decision effectively acting as a *de facto* standing list of

priorities. Long-term projects invariably find themselves scheduled as perennial later-year proposals. (At least one Air Force project has been in and out of the FYDP for 15 years).[6] Such a process of continual fallacious priorities creates a great deal of nugatory work and debases the utility of the system.

A more serious flaw in the PPBS process lies in its inability to handle very large purchases such as the new submarine, whose costs may exceed $4 billion (70% to be spent in Australia).[7] The incorporation of such projects creates huge dislocations in the FYDP process particularly when political and other pressures affect the decision-making process.[8] The 1986 Review of Defence Project Management, a significant report on the adequacy of project management within defence, provides useful insights into this problem, suggesting that although the FYRP is not a binding process, "forward planning without it would be even more damaging."[9]

Assessments of Existing System

The underlying politico-bureaucratic system is essentially adversarial. Every year each service proposes bids for new major equipment. These proposals are based upon the satisfaction of shortfalls in operational

capability, expressed in terms of operational requirements. Prior to the formation of the DOCCC, all operational requirements were initially considered by a relatively low-level committee, the Defence Operational Requirements Committee, however, this committee was little more than a first filter in the staff process and did not set levels of priority.

Each year the FSC attempts to prioritize the equipment list when it considers the bids, but again it tends to set priorities in terms of equipment acquisitions rather than the broader questions of capability. Bids consistently exceed guidance, and each service is forced to justify the inclusion of its proposals at the expense of those from the other services.[10]

The Cross report discussed the processes of force structure development at some length. In particular, the report highlighted "the absence of an assured connection between basic defence guidance and operational requirements." The report proposed that a rational process would follow on these lines:

a. identification of basic purposes and objectives,

b. analysis of external conditions and trends (including threat and technology assessments),

c. definition and examination of alternative defence strategies to satisfy Defence objectives within constraints,

> d. reconciliation of required resources with those already available or to be made available. (This involves a process of program objectives and priorities, revision of strategic concepts and force postures, and assessments of continuing shortfalls).[11]

The first three steps are strategic questions and would be those addressed in the context of national security policy--in a document such as the Australian Strategic Analysis and Defence Policy Objectives (ASADPO), produced on a regular basis by the Department. The last step, of more relevance to this paper, merely states the avowed purpose of the current PPBS.

The government, after considering the Cross Report, accepted some of the rationale behind the report, but it did not wish to make organizational changes other than those which were being put into place (the establishment of the DOCCC being one).

> The government agrees that the force development process needs to be improved, but it does not agree with the sub-committee's finding that wide-ranging changes leading to fundamental shifts in the policy-making process are necessary. In our view the process can be significantly improved by developing clearer and earlier statements of operational concepts - that is how the defence force would go about various operational tasks. These can be developed from the broader strategy laid down in the White Paper and in turn will assist us to make judgements on the capabilities we require. ... The establishment of the DOCCC has created a firmer link between strategy and force structure.[12]

The basic difficulties with the FYRP approach are two-fold. Firstly, the lack of inadequate guidance leads to unrealistic expectations of funding. This combined with an entrenched adversarial approach to FYDP development encourages the build-up of an unrealistic equipment program by the services. Secondly, the apparent concentration on equipment acquisition gives rise to the "unit replacement syndrome" and an apparent subordination of adequate debate about the wider aspects of capability development. The secrecy and lack of public debate surrounding the process do little to foster confidence in the process.

The essential problem is that the FYDP is a gallon program, and each year it must fit through a pint-sized filter. The more important projects pass through the bottleneck, and some never get out of the bottle. In the absence of significantly greater expenditure on defence, an unlikely event in the current strategic circumstances, the situation is likely to continue. To paraphrase part of the report of the Review of Defence Project Management, the FYRP process may not be much good, but it is the best we have got. The challenge is now to find a way to make it work.

DIVISION OF RESPONSIBILITIES

Before examining the roles played by the different committees in the development of force structure doctrine, let us briefly dwell on the divisions of responsibility within the Department. The Defence Department is a complex organization. Its functions extend beyond the conduct of and preparation for military operations, encompassing functions such as defence production, logistics, strategic assessment, financial management, procurement, defence science. For a number of reasons, partly functional responsibility and partly the Westminster system of government adopted by Australia, the Department has two major components, one headed by the Chief of Defence Force, and one by the Secretary. Under the Minister of Defence, they jointly administer the Department. In addition, the CDF commands the Defence Force.[13]

Utz Management Review

A number of reviews of the Defence Department, most notably the 1982 Defence Review (the Utz Committee), have examined this question of division of responsibility.[14] Much of the discussion has centred on the ability of the senior military officer to influence the development of policy performed by the civilian officers of the Department.

Utz endorsed the "joint process" and could not recommend the extension of control by CDF(S) over the civilian department officers. Nevertheless, Utz's report noted that the department had an obligation to involve the CDF(S) and his staff in the "higher direction of Defence policy and its administration."[15] The conservative Fraser government that commissioned the report and the following Labour Hawke government did not differ with Utz's recommendation on this issue.

Cross Management Review

The 1987 Cross report also dwelt at length on the issue of the diarchic structure.[16] Cross believed that there was excessive control by the civilian officers in the Department, and that the CDF should be responsible for the development and implementation of defence policy and guidance (as opposed to national security policy), the preparation of the FYDP, and the day-to-day management of the services.[17]

Government Response to Cross Report

The Minister rejected the proposition that the current problems associated with defence were related to the existing diarchic division of responsibilities, adding that such rejection was supported by the Secretary and CDF.[18]

The government reaffirmed its satisfaction at the functioning of the current system, noting that new work, predominantly military planning flowing from the 1987 Defence White Paper initiatives, was taking place under an expanded HQADF, and that this would resolve many of the problems endemic in the Defence Department.

Many military observers saw the creation of the VCDF position and the creation of the DOCCC as a welcome counterfoil to the power of the Defence central organization responsible for force structure (Force Development and Analysis Division [FDA] under Deputy Secretary B). Such observers hoped that the role of the DOCCC, under the chairmanship of VCDF, would command a decisive role in shaping broad objectives, particularly in the area of force structure, with the FSC continuing its role as overseer of the equipment acquisition process.

Such a role is not yet apparent. While the government views the role of the DOCCC as significant input into the force structure process, it regards such input as complementary to the contribution offered by the FSC.[19] This theme of requiring a balanced view from his Department, and the concept of considering factors other than purely military (such as foreign affairs, trade, industry, sociologic) appears central to the Minister's rejection of

the Cross Report recommendations.[20] Accepted doctrine, then, indicates that the role of the FSC continues to be, if not central, then at least complementary to that of the DOCCC.[21]

There are important considerations flowing from this apparent diarchic committee involvement. The membership of the FSC, with its representation from areas other than the services, and the Force Development and Analysis (FDA) Division (containing, e.g. the Prime Minister's Department, Strategic and International Policy) suggest that this committee might represent a wider, more balanced viewpoint, and consequently might be able better to provide advice to the Minister.

Joint Strategic Planning Committee

A new and more representative high-level committee has in fact been proposed in the Baker Report. This committee, the Joint Strategic Planning Committee (JSPC), with a membership including the First Assistant Secretary, Strategic and International Policy (FASSIP), and also the Chiefs of Staff, represents middle ground in the development of policy. The committee could coordinate and direct joint military strategic planning on behalf of CDF and the COSC. It would be chaired by VCDF (who also chairs the DOCCC,

which provides much of peacetime deliberation relevant to the functions of the proposed committee in times of tension or conflict).

The status of recommendation is not known to the writer. However, the establishment of such a body would be a most useful contribution to the development of, *inter alia*, force structure policy.

Joint Process and Ministerial Direction

Discussion of changes to the division of responsibility is to some extent nugatory, as the efficient working of the Department is reliant on what is known as the "joint process" (q.v.) whereby each of the two players provide advice to the Minister and share responsibility for the administration of the Department. In the end, and in the absence of any specific legislative basis for division of responsibility, it is the Minister *pro tem* who will decide, through the medium of Ministerial Directives and by his own actions, which advice he will follow.

The final outcome of more than ten years of defence review of, *inter alia*, the question of responsibility for the development of force structure appears to be a reflection of the diarchy of the Department in the two

committees responsible for development of ADF force structure--the FSC and the DOCCC. The government sees both as complementary, and in the absence of endorsement of the new JSPC, such diarchy appears to be enduring. The definition of the development of force structure policy must take into account this duality of approach.

FORCE STRUCTURE DEVELOPMENT - CURRENT GUIDANCE

Quo Vadis?

Notwithstanding earlier criticism in this paper of the lack of adequate guidance for the development of the FYDP, the defence planner now has the benefit of broad strategic objectives enumerated in the 1987 Defence White Paper. The concepts implicit in the White Paper are the relationship of strategy to threat, the concept of warning and preparation times, and the relationships of deterrence, offence, and force capability. The level of threat perception is of course central, and planners are admonished not to ignore real lower-level threat in favour of those that may not exist.[22]

> Defence policy planners cannot allow themselves the luxury of playing safe by only preparing for the worst possible case because they may leave us ill-prepared to meet more likely contingencies.[23]

Force Structure Development Process

If we can accept that the 1987 Defence White Paper represents a good starting point for the process of defining a force structure process, what areas merit further study? Under present strategic guidance the areas required for force development are:[24]

- intelligence collection, assessment and regular review processes to detect changes in strategic circumstances,
- planning processes which regularly test the consequences for our force structure of the types of military pressure that could arise over the shorter timescales, and
- a defence force able to: undertake current and foreseeable peacetime operational tasks, and deal effectively with the kinds of military pressure that could arise over shorter timescales, and provide a suitable basis for timely expansion to meet higher levels of threat if our strategic circumstances deteriorate over the longer term.

Baker's unclassified report on Command and Control gives us some useful insights into what appears to be the currently accepted basis for military strategy development.[25] In light of his comments we can assume that our military structure should be based upon the following tenets:

- a non-nuclear strategic defence of Australia,
- no aggressive outlook but a blend of offensive and defensive measures,

- defence in depth to be achieved by control of approaches,

- priority given to approach control,

- most likely approach is through island chain to north, with consequent emphasis on north and north-west of Australian continent,

- definition of area of direct military interest [as given in the 1987 Defence White Paper],

- within the characteristics of forces for defence of Australia, there should be practical options for sustaining defence activities further afield should the need arise,

- a basis for expansion to meet higher level threats remote in time to be retained,

- the possibility of shorter-term contingencies based on existing regional contingencies will provide the focus for force development and readiness.

We can also expect that the outcome of an ADF military strategy will be expressed in various forms such as ADF inputs into the force structure process, CDF directives in the form of training directives and readiness requirements, ADF activities - intelligence, surveillance, Defence Cooperation Program (DCP), alliance maintenance, promotion of a sense of strategic community between Australia and her neighbours, and formulation of operational concepts. The above bases for force development appear to be broad enough to ensure generalized concurrence yet sufficiently narrow to provide a basis for further discussion. These concepts will be used as representative inputs into a model for the definition of force structure.

CHAPTER FIVE
ILLUSTRATIVE FORCE STRUCTURE PROCESS

> Effective Defence policy must be grounded in a sophisticated and accurate assessment of our political and military environments, but political pressures almost invariably work to favour vague and simplistic fears over careful analyses.
>
> Beazley, 1988 Roy Milne Memorial Lecture.

This chapter contains the core of the paper--the definition of a process for the derivation of force structure. From first principles it will set forth a model for force structure development. This model, using endorsed strategic guidance, will provide the basis for the development of functional relationships between, *inter alia*, strategic objectives, national security policy objectives, military objectives, and functional activities. The functional activities will constitute the final output of the model.

The chapter will begin with a general discussion of force structure concepts before proposing a generalised model for force structure planning. Examples, drawn from the Australian defence environment as described in previous chapters, will illustrate the principles espoused. A representative series of operational tasks and objectives for the ADF will help the reader to understand the scope of

the job facing the defence planner in defining ADF force structure, particularly operational capacity to wage war. The chapter ends with an indication of the model's utility to serve as a process for the derivation of force structure in the Australian environment, pointing the way for further development work by ADF planners.

FORCE STRUCTURE CONCEPTS

Force Development

Force development is a central part of defence planning. It includes all aspects involving the organizing, equipping, maintaining, training, and supporting of force elements that provide an operational capability. (The term force element is generally taken in the Australian setting to be an integral fighting unit--a squadron of aircraft, a frigate, a battalion.) Force development is part of the overall process of defence planning. It encompasses the planning that leads to, and the acquisition of, military capability, including the wherewithal to make it effective.

The second, and usually ensuant part of defence planning, is the development of plans, policies and procedures (a loose definition of doctrine) to apply those military capabilities in the defence of the nation. The two are interdependent; however, there has been a tendency in

the past, not limited only to the ADF, for the development of both parts of the defence planning doctrinal process to follow the introduction of technology--the acquisition of the equipment.

Force Groups

Force elements are formally grouped, with their supporting force elements, into larger synergistic components that together comprise a significant operational unit, a force group. An example of a force group is the Maritime Patrol Group (MPG), composed of two operational flying squadrons, a maintenance squadron, and a training and operational support squadron. Force groups are usually capable of providing deployable subgroups and, as such, may be assigned to joint force commanders as required for operations.

Not all force groups are capable of directly conducting military operations, as large sections of the services provide logistical support that is common to more than one operational force group. Such military units provide broad levels of support and are grouped by function. The Air Training Force Group provides trained air crews for the conduct of operations by all operational force groups.

Although all three services are organized in a traditional hierarchical structure (in the case of the Air Force: squadrons, wings, formations, and commands), it is important to consider all elements of the ADF as contributors to the application of military power by the front-line operational force groups. Thus even though the MPG formally comprises only four units, it is possible, through matrix analysis, to identify large sections of the rest of the Air Force as direct and indirect support components of that section of the ADF that projects long-range maritime air power.

In the past, the traditional boundary lines between the services formed sharp demarcations between military fighting units and the units that supported them, and like units from other services. The introduction of joint force command and the assignment of assets has blurred the boundaries. We can thus expect to see air force units, not only at air base level, but further back in the logistic chain, reacting to the demands of joint force commanders as they exercise command over assigned and allocated air assets.[1]

Furthermore, there is likely to be an increasingly strident call for input into the force structure planning process from the end-user of the military capability process. The CDF and his Joint Force Commanders,

responsible for the application of military power, are likely to want to have a part to play in the formulation of the policy that provides them with their fighting forces.

There is a great deal of interdependence between components of the ADF. Logistic chains grow longer as equipment, heavily dependent on high-technology support is introduced. There is a distinct tendency for centralization of support functions,[2] and economic pressures dictate that greater commonality must exist between weapon systems. For example, the new helicopters (Sikorsky Sea Hawks) being purchased by the Royal Australian Navy (RAN) are essentially the same airframes as those being purchased for the Army for its battlefield helicopter (Sikorsky Black Hawks), yet the functions they perform are quite dissimilar. The Sea Hawk is part of an integrated system providing long-range targeting and detection for Navy frigates, and the Black Hawk provides tactical mobility for ground forces. It is somewhat ironic to note that such dissimilar functions are performed by very similar force element hardware, with largely congruent supporting systems.

HIERARCHICAL MODEL FOR FORCE STRUCTURE PLANNING

Force development cannot take place as a series of isolated equipment acquisition programs. The high costs of

new weapon systems and the lengthy periods of development and introduction into service demand that the acquisition of new capabilities, and the maintenance of extant capabilities must both be rigourously determined. New weapons systems are inherently more capable than those that they replace, and with few exceptions, they are more expensive. Increased capability per system invariably means a lower number of systems, so a necessary compromise must be struck between capability and numbers.

Application of military power as a tool of national security policy remains the paramount goal for the military planner, and all efforts must be subordinated to that goal. The development of force structure must follow from the overarching objectives that contribute to national security. Moreover, national security objectives must contribute to national goals. In times of peace, the relative balance between expenditure on national security objectives and the attainment of national goals is necessarily tilted towards those goals that contribute most to national prosperity.

However, in an era of spending goals of a constant 3% of GDP, let us not forget that the first responsibility of any government is the defence of the state. If the nation's security is threatened, other governmental responsibilities must be subordinated to defence responsibilities. In the

final analysis, (and it was primarily for this reason that the Australian Commonwealth Government was created in 1901), the government exists only for the defence of the people.[3]

Hierarchical Relationships

A conceptual framework of hierarchical relationships between national objectives and the development of military power affords a logical and ordered approach to the development of a process for defining force structure. Here we will concentrate on the development of a generalized process that shows how this military capability can be achieved and maintained. A hierarchical process will be defined relating the acquisition of specific military capability to the achievement and maintenance of national security objectives. The consideration of units of the ADF as singular force elements within an overall matrix and each contributing to the application of military power is central to the notion of functional military capability.

A hierarchical "top-down" approach is not new, however, the application of such an approach is new. The 1987 Defence White Paper is a first attempt at such a process in the Australian setting.

This paper proposes a process that, in a top-down

approach, defines elements of force capability from superior deriving functions of desired military capability, in turn themselves derived from national security objectives. The approach it will use is partially dependent upon concepts advocated in a USAF Study, Project Air Force.

Project Air Force.

Project Air Force, conducted by USAF Air Staff and a number of contractors, attempts to relate US national military strategy explicitly to Air Force operational tasks and programs.[4] The concepts in this study are sufficiently general to be applicable to the ADF. The concept of derivation of force component capability from higher order military strategy is consonant with the White Paper and is believed to be the approach currently being examined by force development planning staff within HQADF.[5]

As part of the wider Project Air Force Study, the RAND Corporation has defined an approach commonly known as the "strategy-to-tasks" analysis.[6] The present paper will use a generalized adaptation of this process to define an illustrative force structure for a force group similar to sections of the air component of the ADF. Following this somewhat theoretical approach to the derivation of force structure, it will propose a process specifically tailored

to the ADF (in particular, the air component of the ADF).

Conceptual Framework

Diagram 5.1 illustrates a conceptual framework linking fundamental national goals to the military tasks that must be performed in defence operations. Such a framework provides a basis for the systematic analysis of the contributions provided by subordinate military capabilities to the wider achievement of national goals.

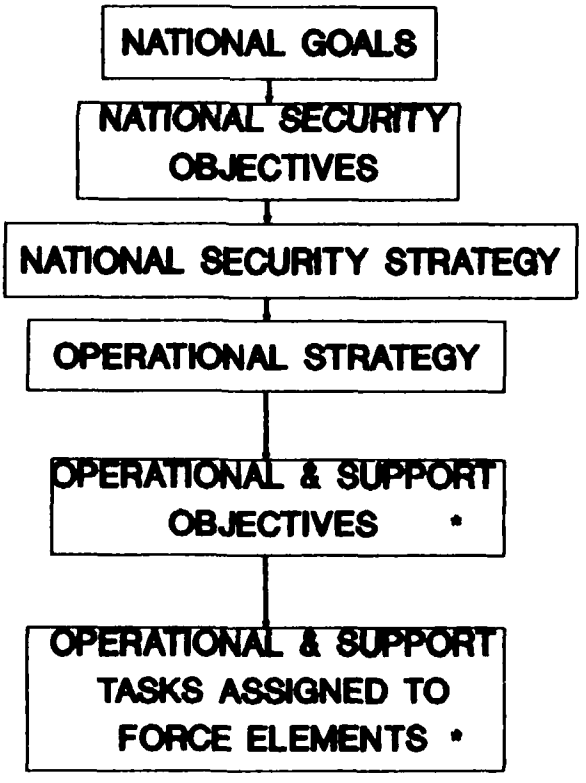

Diagram 5.1

Analysis will concentrate on the starred (*) levels.

National Goals and Security Objectives

National security objectives are usually thought of as military ends designed to ensure that the nation is free from external attack. However, a nation's security involves much more that just the development and application of military power.

The US government (through the Office of the President), has commenced the annual publication of a national security document, designed for widespread dissemination.[7] This publication defines many of the overarching principles that guide the development of doctrine for the top three levels of the hierarchical framework shown above. Indeed, much of this publication *is* the doctrine at these superior levels and provides derivative authority for development of subordinate principles. On the subject of national goals, the document states:

> National Security Strategy must start with the values that we as a nation prize ... values such as human dignity, personal freedom, individual rights, the pursuit of happiness, peace and prosperity ... The ultimate purpose of our National Security Strategy is to protect and advance those values.

A statement of national goals allows for the definition of national power, of which military power is one component (the others being diplomatic and economic.)

National security objectives can be derived from such goals, and are best developed in free and open discussion. In Australia, the Parliament obviously has a role to play here. Interest shown by groups such as the Joint Parliamentary Committee on Foreign Affairs, Defence and Trade (JPCFADT) should be encouraged by the government, and this nascent process should not be allowed to descend into partisan politicking and point-scoring.

Institutions such as the Strategic & Defence Studies Centre (SDSC) at the Australian National University (ANU) and special interest groups such as the Royal United Services Institute of Australia (RUSI) can, and have, made useful, reasoned contributions to the defence debate.[8] At this level of discussion, where the overall interests of the nation are involved, there is much to be gained by seeking broad political and community support for the development of national security policy.

National Security Strategies and Alternatives

The above forums are also the appropriate place where alternative defence strategies should be examined and a national security strategy endorsed. Graeme Cheeseman, a Senior Research Fellow of the Australian Peace Research Institute at ANU, has identified seven possible strategies

for meeting the national security objectives that would follow from national goals previously described. They are included here because they provide a representative spectrum of approaches to achieving national security goals. Of the five alternatives grouped under the heading of conventional military defence he has listed three offensive defence strategies, and two non-offensive defence strategies (the last two on this list):[9]

> Preventive or Preemptive War. Destroy enemy means or will before he can launch his weapons.
>
> Strategic Offence. Immediate counterattack against enemy's homelands or interests, forcing him on the defensive.
>
> Retaliation. Punish the enemy by attacking civilian and military targets in his homeland.
>
> Frontier Defence. Meet and destroy enemy forces in approaches or at the border of own territory.
>
> Territorial Defence. Fight enemy forces on own territory.

The above categories are obviously not mutually exclusive; indeed, Australia's current defence posture is in fact largely an unbalanced mixture of the second and fifth. Frontier Defence is clearly a variant of Dibb's defence-in-depth, previously criticized because of its reliance on attrition, and the first and second options can be subsumed under the rubric of deterrence (in Australia's case, by the use of the F-111 SRG).

Cheeseman also describes two strategies of non-military defence. However, these strategies are essentially defeatist strategies and would be unlikely to command much national support.[10]

The development and discussion of defence strategies that differ from those nationally endorsed (assuming such strategies have received endorsement) is essentially a political debate, and while military planners and strategists have not only a right but a duty to contribute to their formulation, variance from the *status quo* must be a matter for national plebiscite. Propounding of strategies widely different from extant doctrine belongs to the political realm, properly forming the basis upon which a party's political defence platform rests.[11] Such propounding must go beyond mere rhetoric, however, and the public must be properly informed of the consequences of endorsement of a particular strategy.

It is in fact *naive* to expect that political parties will actually spell out in their electoral platforms the costs of such alternatives, both actual and hidden (i.e., what is the real cost to Australia of adopting a non-offensive 'meet-them-at-Sydney-Heads" posture). Consequently, all bodies interested in the defence of the nation must be at least as active as other lobby groups in

bringing facts and consequences before the public and the decision-maker.

It serves the public purpose little for Defence planning to operate reactively when attempting to gain public support--it is the duty of the defence planner, non-politically, in the forums available to him, to expound his case actively and openly through education and advocation. The publication of the 1987 Defence White Paper was a useful first step in this process.

Operational Strategy

The White Paper is short on descriptions of national goals and security objectives. However, it provides a useful overview of endorsed national security strategy and some strong guidelines for the development of operational strategy.

This area is quite rightly the province of the defence professional, as it represents a level beneath the public and political debate and requires the application of professional experience and judgement. Decisions will still need to made by the executive, i.e. Ministerial endorsement, as we are now discussing the formulation of Defence policy. Such policy will, however, be developed by the defence

establishment most probably as a series of ranked options, in light of the political and resource constraints imposed on the Departmental process.

The end-result should be a spectrum of alternative strategies, with outcomes matched to inputs, that will allow for the definition of military objectives necessary to achieve such strategies. The overall tenor will be essentially military, and the military professional should be the progenitor of such strategic development. He must, however, be responsive to the constraints of limited resources, and, under Parliamentary guidelines, a civilian input will be necessary to achieve the requisite balance.

The system cannot be open-ended, especially in times of financial constraint; thus this model must allow for an assessment of the adequacy of operational strategy and subordinate operational activity in meeting overlying national security objectives. In other words, there must be a feedback process that determines, as a level of risk, whether we have enough military force to achieve or maintain our national security goals.

OPERATIONAL OBJECTIVES AND TASKS

The linkage of operational objectives and tasks to operational strategy can be determined by assessing the degree to which force elements afford capabilities to achieve stated strategies. This approach requires an analytic identification of the capabilities that each provider of military force (in Australia these are the three services, Navy, Army, Air Force) is capable of providing through the training and equipment of force groups that underwrite operational concepts through the accomplishment of specific tasks.

Performance of a group of tasks enables a force commander to achieve an operational objective. An operational concept defines the means whereby such operational tasks can be achieved and provides guidance on the definition of programs that are required to achieve such operational concepts. The process is shown in diagram 5.2.

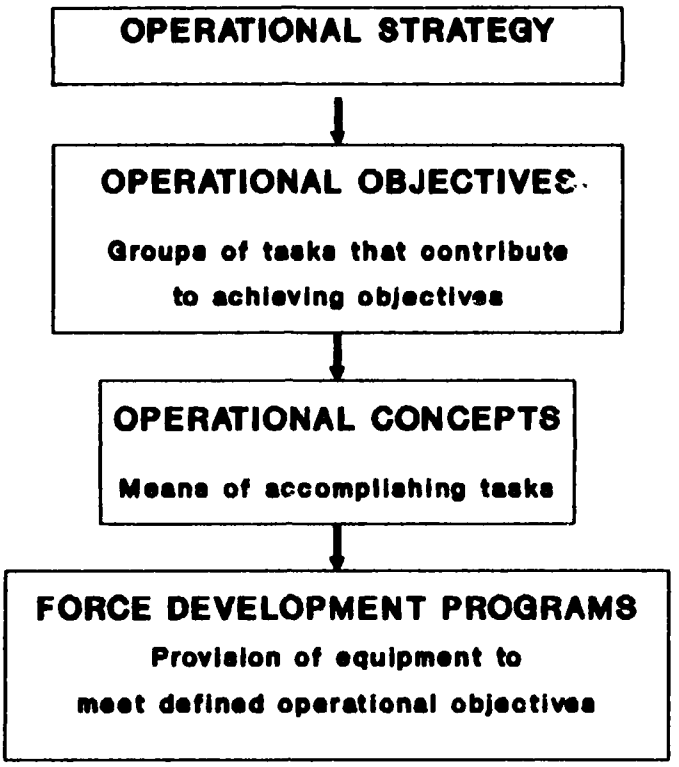

Diagram 5.2

There must also be a continuous assessment and feedback process at each level to ensure adequate response. This must also be sensitive to changes in strategic and tactical circumstances. Such a feedback loop may in fact provide a political "safety valve", identifying areas of inadequate response or shortfall (particularly in terms of numbers of weapon systems required to adequately meet the assessed threat) and their replacement by acceptance of defence risk.

The process revolves around the definition of operational concepts. From a perspective looking upwards,

operational concepts will define the method of achieving means of operational strategies and national security goals. From a perspective looking downwards, operational concepts will define the program necessary to be brought into (or maintained in) service to accomplish the required outcomes.

Contractual Relationships

Let me make some assumptions before continuing. It is assumed that these operational tasks will be carried out by a joint/combined commander (joint involving forces from more than one service, combined involving forces from more than one nation), and that forces will be assigned under some process from individual services responsible for the raising, maintaining and supplying (in a logistics sense) those forces. This assumption is important, for it applies in Australia as well as in the United States, for which this generalized model was developed.[12]

In the US military, the individual services raise and maintain forces, assigning forces permanently or notionally through an allocation process to unified or specified commanders. In Australia the three service chiefs are the professional heads of the services, responsible for the development not only of the people under their command, but the development of their (assignable) forces as well.[12]

This is entirely proper as it ensures that professional development of the force lies with those best equipped to deal with such development and allows the joint force commanders and their staffs to concentrate on defense planning for the conduct of military operations. It has the disadvantage, however, that the commanders responsible for application of military power have little formal input into the development process.

To allow for formalization of the input by the operational commanders, this model of hierarchical relationships is thus modified to incorporate the concept of a contractual relationship between the supplier of the force elements, the service chief, and the potential end-user, the operational commander. The medium of exchange is the operational capability offered by the application of the force element; the arbitrage is the division of the financial expenditure on the acquisition and maintenance of the force element.[13] The successful application of such a process will ensure that the operational commander has a fair share of the nation's defence outlay at hand to meet his operational commitments.

Note that under this hierarchical model, the term "requirement" should only be applied to deficiencies in operational capability, not to pieces of operational

hardware. It is important to note that the supplier of the forces, the service offices, should ensure that the traditional role of first examining the "operational requirement" for a new piece of equipment has been changed. Guidance on operational capability requirements should be the driving force, and service offices should look towards the senior operational commander (in Australia's case the CDF) to seek his input on operational deficiencies for the force in general. Once the operational deficiencies have been identified and ranked in priority order, service offices should look downwards to their own force development divisions for the identification of programs to ameliorate these deficiencies.

This is not to say that there is no place in the process for service-led proposals, but such proposals should naturally fit into the overall priority of the process. There will still be a great amount of opportunity (and necessity) for professional input into the force definition process.

STRATEGY-TO-TASK ANALYSIS

The concept of a strategy-to-task analysis can be described as a four-part process. It is most important, however, to ensure that a rigorous, systematic, end-to-end

assessment is applied. (In fact, the process must be iterative until the system is seen to be stable). The capacity to achieve an operational task will only be as good as the capability of each of the elements performing the end result of the task. This approach would, for example, in an air defense environment relate the functions of surveillance of an air defence region, assessment of threat, generation of assets, command and control and attack into a coherent whole, including the identification of all supporting systems. Inability to achieve each action would cast doubt on the capability of the system overall.

The other steps in the process are these: derive operational and support objectives from operational strategy, and then list the tasks to be performed to achieve each of the desired objectives. Through a generally subjective process, assign weights to identified tasks. Next, assess the degree to which current and future forces and support elements are capable of performing each task. Then, using a weighting process, determine which capabilities have the most important shortfalls.

Let us examine each of these steps in detail, paying particular attention to the end-to-end systematic assessment requirement and also to the contractual relationship between the supplier and the user of the forces.

Step One - Derivation of operational and support objectives and task listings.

The derivation of operational and support objectives from operational strategy starts with the identification of activities required to achieve the desired operational strategy. In the Australian environment the White Paper identifies the following operational strategies: a non-nuclear strategic defence of Australia, no aggressive outlook but a blend of offensive and defensive measures; defence-in-depth to be achieved by control of approaches through the island chains to the north, with a consequent emphasis on the north and northwest of the Australian continent; expansion capability for sustaining defence activities further afield should need arise; and a possibility of shorter-term contingencies based on existing regional contingencies. All of these provide the focus for force development and readiness.

What operational objectives flow from these desired operational strategies? For illustrative purposes, the discussion will be limited to low-level contingencies in the current Australian defence environment, where the ADF response could be security operations or military contributions to conflict resolution.[14]

Operational objectives for security operations would include defence of approaches and other maritime areas, the continent, near offshore islands and territories, offshore territories, and allied territory. An air defence interception zone (ADIZ) would need to be declared; thus, air defence and air space control would be important operational objectives. A key objective would be the airlift of forces and supplies into forward airfields, as would be generation of logistical support at forward and main bases.

With respect to the identification of operational and support tasks in the achievement of the above operational objectives, the use of air assets would be the prime vehicle for surface maritime detection, and perhaps strike. Because of the distances involved, air assets would also provide the bulk of logistical support until naval supply and other transportation modes were available in the area of operations.

If Australia decided to gain the military strategic initiative, offensive capabilities would be required as well. Operational tasks would include offensive strike or low-level threats carried to the enemy to cause him the problems of geographically disproportionate response. There would be great demand for the allocation of air assets in

the support of such operational strategies. The Maritime Patrol Group of P3C aircraft, for example, would be heavily tasked in the surveillance (perhaps strike) role, while concurrently being tasked for ASW operations.

A number of illustrative operational (that is contingency or wartime) tasks and objectives that could be performed by air force elements are listed below. These have not been rigourously determined, however they are representative of those required in the Australian environment.[15] No attempt was made to separate task from function, nor is there any implication that any or all tasks should necessarily be performed by the application of air power--such allocation to any particular force element type is inappropriate at this point in the analysis. Tasks and objectives have been divided into two categories--operational and support.

Operational Objectives and Tasks. These operational objectives and tasks would directly assist the ADF Maritime, Land and Air Commanders to achieve their strategic objectives:

-Defeat enemy air attack
- destroy enemy aircraft in the air at long-range
- destroy enemy aircraft in the air in area of land and naval operations

-Deny enemy the opportunity to generate air assets
- destroy enemy aircraft on the ground
- destroy enemy air bases and supporting infrastructure

-Provide battlefield air interdiction
- destroy enemy armour
- destroy enemy artillery
- Conduct tactical reconnaissance

-Destroy enemy logistic support infrastructure
- destroy or damage enemy reserve or follow-on forces
- destroy or damage supply and logistic centres
- destroy bridges, ports, choke points

-Degrade enemy capability to use air defences
- destroy enemy air defence radar and C2 sites
- destroy enemy SAMs
- provide self- and mutual defence for own aircraft

-Degrade enemy's command and control infrastructure
- destroy or damage C2 system
- conduct strikes to disrupt enemy communications

-Defeat enemy ground forces engaged with own forces
- destroy enemy land forces near own troops
- damage or destroy enemy artillery and SAMs
- destroy enemy land vehicles

-Defeat enemy ground follow-on forces
- destroy enemy land forces on ground
- destroy inbound enemy land air and sea transports
- destroy enemy land force rear infrastructure

-Deny enemy use of electromagnetic spectrum
- Suppress enemy use of jamming and deception
- Destroy enemy EW equipment

-Damage or sink enemy surface forces
- Damage or destroy naval surface vessels

-Destroy enemy subsurface forces
- Conduct ASW, including distant and close support to an afloat maritime commander
- Conduct hunter-killer operations

-Conduct offensive and defensive mining
- Offensive and defensive mine laying
- Conduct mine countermeasure operations, including mine-hunting and mine-sweeping.

Support Objectives and Tasks. These support objectives and tasks would indirectly assist the Joint Force Commanders (Maritime, Land and Air) to achieve their strategic objectives:

-Provide inter- and intra-theatre transport support
- Transport forces and supplies to area of operations
- Transport forces and supplies within area of operations
- Insert, support and extract special forces
- Provide air evacuation of casualties
- Directly insert and retrieve own troops into battle

-Provide at-sea air support to naval forces
- Conduct vertical replenishment
- Provide over-the-horizon (OTH) targeting
- Provide tactical reconnaissance
- Conduct point and area anti-air warfare

-Repel attack against own forces and air bases
- Provide own low-level air defence (AD)
- Provide early warning of enemy air attack
- Detect identify and attack low-level aircraft
- Surveillance of likely attack routes
- Detect and counter the launch of enemy missiles
- Provide deployed mobile AD radars and SAMs
- Reduce enemy damage by camouflage, dispersal, diversion, deception, hardening, redundancy

-Deny enemy opportunity to intrude
- Conduct open-ocean surveillance, including shadowing
- Conduct OTH detection

-Conduct intelligence-gathering
- Conduct open ocean surveillance
- Conduct OTH wide-area detection
- Conduct electronic intelligence gathering

-Conduct logistical support
- Provide adequate supply of POL and munitions
- Provide logistic support of own forces in operational area
- Provide maximum operational combat assets through effective maintenance and logistic support

-Provide effective C2 and communication
- Provide effective tactical control with fast, secure, counter-EW communications
- Provide adequate staff planning facilities
- Provide radar detection and communication facilities in operational areas
- Conduct meteorological and hydrographic support
- Provide weapon support terminal control systems
- Conduct airspace control

-Provide air-refueling capability
- Extend range of offensive strike aircraft
- Extend time-on-station of counterair, CAS, BAI and support aircraft

-Provide combat air rescue.

Additional Peacetime Tasks. In addition to the above operational tasks and objectives, there are a number of tasks conducted in peacetime that contribute either to the national good or else to the conduct of air operations. The former would include fishery and sovereignty patrols, assistance to civil authorities (natural disasters, flood relief, etc.), search and rescue, interdiction of drugs, hydro- and aerological research and observation. The latter (aside from training, which is a functional activity required before operational activity can proceed) would entail general and specific surveillance and reconnaissance; thus they would overlap broadly with operational tasking. Such tasks, if included in the force structure determination process, must effectively be given lower priority than meeting operational tasks unless political (i.e., national security) considerations dictate otherwise.

Step Two - Assignment of weights to tasks.

Tasks have to be performed concurrently, and each has a differing level of criticality. Weighting can be applied to each task, reflecting the necessity for the contribution of that task to the achievement of the overall operational strategy. These weightings may be subjective or derived by computer analysis of task contribution, but they could be little more than "critical," "important," "desirable" (or "low priority"). Task criticality assessments may perhaps be highly dependent on scenario, and it may be necessary to provide for a series of weightings, one for each credible contingency. It is important to note that if a force group cannot achieve a critical task, then the strategy to be employed must be varied or another solution sought.

A table (see Appendix 3) can be completed indicating the criticality of operational objectives and tasks. It may be useful to compare relationships between tasks identified and resources required to raise and maintain the forces necessary to achieve those tasks, particularly if such tasks are identified as not critical. Conversely, critical tasks not currently performed, because of lack of extant capability or high cost, will represent areas of high risk to national security. A combination of both approaches may help to identify programs offering high leverage (output

achieved for resources expended).

Step Three - Assessment of performance.

Once tasks have been identified, and weightings applied, the process of assessing performance can provide an assessment of extant capability and, through projection, assessment of future capability. Conversely, this step can also provide an estimation of shortfall in current or future capability.

Assessment of Extant Capability. The model presupposes an iterative approach. For the initial pass, the process of assessment of performance must be carried out by examining the contribution that current force structure makes to the execution of the predetermined objectives and tasks. The previous *ad hoc* (i.e., equipment-oriented) approach may cause a degree of force-fit to the model; however, the utility of the model to assess performance against endorsed tasks (and thus national strategies) will become clear.

It is interesting to note that, with few exceptions, the extant force structure of the ADF pretty well matches those identified in the Dibb Report and the Defence White Paper. Whether this was a result of political pragmatism or a previously shrewd acquisition program is left for the

observer to judge.

This model does not have to be one that provides only marginal analysis. That is, assessment of performance does not have to be limited to matching performance of current force elements to the desired tasking. It also provides for the identification of alternatives. The process would work in this manner. Once tasks have been matched to force elements, alternatives could be identified and costed.

A word of warning is in order here. Costing of force elements is fraught with danger. To properly identify the cost of providing a force capability, all costs that contribute to the raising and maintenance of that capability must be included (i.e. running, fixed and indirect). Such a costing can be performed using the matrix approach mentioned earlier in this chapter. For example, the cost of the SRG must include not only the direct costs of operating the aircraft, but also a proportion of the costs of running the base(s) from which they operate, a share of the cost of the headquarters, the logistical supply organization, etc. While such costs rapidly mount up, they are a necessary investment in providing that particular military force capability. Moreover, performed properly, such cost assessments allow for meaningful comparisons to be made.

To provide an analogy, a strike against troops opposing the landing of amphibious troops along a coast that has been sea-mined can be made using CAS aircraft; alternatively, naval gunfire support can be used. The task of delivering ordnance against lightly-armed defending troops may best be met by low-cost CAS aircraft rather than risking a naval vessel, whose replacement cost is measured in hundreds of millions. Conversely, the most effective method of delivering logistical support to troops in a counterlodgment scenario may well be by naval support vessel, rather than by using highly-scarce strategic airlift resources.

It is prudent to expect that for the first pass at assessment, analysis will only be marginal. Likely shortfalls in capability will require subjective assessment of priorities for the matching of tasks and force elements. Second and subsequent iterations will allow for more radical assignments of force elements (both extant or absent) to the process and allow for the easier identification of shortfalls.

Assessment of Future Capability. The model should make allowances for variations in the changes in national security policy created by changes in external perspective. If changes have not been identified, then a *status quo*

situation exists, and this section of analysis should identify the degree to which programmed force structure changes will be able to meet required tasks.

The current CDF has chosen the year 2010 as a useful date to look at future force structure, for that will be the time at which new equipment currently coming into service will need replacement.[16] He has concluded that the present acquisition program will suffice until then, with perhaps the addition of a low-cost CAS aircraft and a smaller maritime patrol aircraft for low-level surveillance. He believes that beyond 2015 the situation will call for greater reliance on subsurface and anti-submarine warfare, and will require greater land force mobility. These observations could validly be drawn from the above list of tasks. A detailed process of iterative analysis of force element capability measured against the list of operational and support tasks will provide a list of capability shortfalls.

Step Four - Determination of Critical Shortfalls.

The determination of critical shortfalls in operational capability is done by combining weightings of tasks with assessed levels of shortfalls. This approach provides guidance to the most important programs to pursue.

There is necessarily a great deal of iteration between this and the previous step.

Application of end-to-end assessment. A central tenet of this model is the requirement to consider an end-to-end concept of operations. The ability of a force element to complete its task can only be as good as the sum of its parts. Moreover, the viability of the total system is questionable when one of its components is defective or missing. For example, Air Force officers have for some time argued that the task of conducting long-range air attack can only be carried out effectively with the aid of an airborne AEW&C capability (AEW&C aircraft have been announced, but no approval date has yet been set). The upgrading of the Jindalee OTHR is not expected to address this deficiency adequately in total system capability.[17]

The concept of systematic, rather than marginal, analysis is quite important here. This model can lead to the formulation of creative and novel approaches to updating current systems, as well as defining new weapons systems.

Strategic Reach. A highly important criterion for the determination of force structure is the strategic reach required for the performance of operational and support objectives and tasks, particularly for those forces that are

considered to be the frontline or first-level of the defence-in-depth strategy. Although Australia's area of direct military interest has been defined as encompassing 10 per cent of the earth's surface (see page 3), the radius of action for the application of land-based air power has been quoted at 1,000 nautical miles.[18] It is probably not coincidental that this figure is identical to the published unrefueled range of the F-111 SRG.[19] (Note that combat radii are usually expressed as maximum figures, with no allowance for evasive routing or manouevring). Even with the completion of all six forward bases on Australia's northern tier, there are significant gaps in covering the declared area of interest. Radii of action for naval vessels, a prime determinant of size and thus cost, are even more difficult to find in endorsed Departmental material.

FORCE STRUCTURE DERIVATION AND PLANNING

Assessment of Operational Capacity

The strategy-to-task analysis allows us to identify shortfalls in current and programmed operational capability and points out areas where the greatest impact in program development can occur. However, the process does not provide us with much insight into capacity--the ability to relate the effort necessary to achieve the desired

objectives. (The concept of capacity is here taken to include concepts of credibility and sustainability). Such insight must either be built into the model or else be considered after shortfalls have been identified.

Let me illustrate the problem to be addressed. Australia is in the process of acquiring a fleet of 75 F/A-18 aircraft for multi-role purposes (the figure includes a number to allow for attrition). These aircraft will be capable of achieving many of the operational and support tasks previously listed; however, the total number available may well be insufficient to meet all objectives within a limited timeframe.[20]

Force structure capacity to achieve objectives and tasks must thus be addressed as well as capability. With a given scenario (a brigade-sized lodgment or a certain number of naval vessels of given capability) it is possible, through war-gaming analysis, to define with reasonable probability (that is, with an agreed amount of risk) the amount of one's own force structure necessary to achieve the operational strategy. Results will necessarily be scenario-dependent, but they will provide at least a planning indication of the numbers required. The comparison of the numbers required to extant and programmed numbers of force elements <u>as assigned to the relevant objective</u> will afford

further indication of shortfall in operational capability and capacity.

Returning to the F/A-18 example, we may find that the aircraft's assumed higher survivability (and greater intrinsic capability) in the delivery of stand-off munitions in the anti-shipping task may preclude its near-simultaneous application in the CAS role. If Australia wished to provide capacity (or a breadth of capability), a new solution to providing direct air offensive capability to maneuver troops engaged with the enemy might be necessary (q.v. for CDF's thoughts on a low-cost CAS aircraft). Note that this capability requirement is based on an assessed capacity to conduct operational tasking, rather than a shortfall in capability *per se*.

There is thus an unavoidable trade-off between numbers and capability. Multi-role aircraft, no matter how capable, cannot perform the range of possible tasks if they are not available to the commander due to their employment elsewhere. The model relating capability to strategy must be realistically applied when force element numbers are matched to operational tasks. Capability without credibility provides an illusory defence posture, and a poor basis for adequate planning.

COMBAT LOGISTIC SUPPORT

The model has so far addressed two of the four military strategy outcomes listed at the end of Chapter 4--viz., ADF inputs into the force structure process and the formulation of operational concepts. The other two relate more to the process of planning for the conduct of military operations; nevertheless, they are also determinants of force structure. The necessity to plan for the conduct of a wide range of ADF operations and the preparation of training and readiness requirements have a direct effect particularly on the level of combat logistical support.

Training and Readiness

Training and readiness levels can flow from the model's ability to specify the type and level of attainment of agreed operational tasks. Training has a dual purpose: it provides force elements the opportunity to prepare for their operational tasks, and, properly conducted, it allows for the validation of planning doctrine. Readiness levels (generally dependent on operational training and activity) in a low-threat environment are more difficult to justify and quantify, especially when the acquisition of capability takes precedence over the exercising of that capability. The concept of warning time is relevant here, and another

trade-off--this time between readiness and acquisition--must be entered into the model as a subjective assessment.

Planning for Combat Support

Combat support is the art and science of creating and sustaining combat capability. It is an activity which exists in both peace and war and which extends from the frontline back to the industrial web that supports it.

The US military has developed a system called the Joint Planning and Execution System (JOPES). This system, through the use of pre-planned scenarios and a computer-based inventory of logistic support elements tied to force elements, allows for the rapid and efficient deployment and employment of military forces. Such a system could be developed for the ADF.

The White Paper has provided the strategic defence objectives and areas of interest. This model has pointed the way towards defining the types of force structure required to achieve the necessary objectives. Development of deployment and employment patterns can proceed to provide the basis for detailed logistic planning.

SUMMARY

This chapter has attempted to describe a model for relating national security objectives to force structure determinants. Such a process has been amplified by the use of illustrative examples where necessary. There has been no attempt to declare what the shortfalls in current air force capabilities are; by and large, these are well-documented. The conclusion to Ball's Air Power[21] identifies shortfalls in current force structure very lucidly.

The advantage of this model is its utility in linking shortfalls in force structure to inabilities to apply military power in support of the national interest. Moreover, it does so in a way that minimizes interservice rivalry. Properly performed, the process can also provide a list of priorities for the acquisition of new capability.

There will be a tendency for military planners to adopt a marginal analysis to the problem of matching capability to force structure. Such a tendency must be resisted at the highest level. The allocation of scarce resources must be of paramount concern to ensure that the net outcome of this process is the maximization of national security objectives.

The next chapter identifies a method of institutionalizing the process within the Australia Defence Department by an evolutionary variation of the current system.

CHAPTER SIX
INSTITUTIONALIZATION OF FORCE STRUCTURE PROCESS

> The nation that will insist on drawing a broad line of demarcation between the fighting man and the thinking man will have its thinking done by fools, and its fighting done by cowards.[1]

The previous chapter described an illustrative model for the development of force structure. Although the model was developed with the Australian strategic and political environment in mind, it has a much wider applicability. The model is nonprescriptive, and dwells on the process, rather than providing definitive solutions. This chapter will draw upon all previous chapters to define how the process can be institutionalized in the Australian defence policy development environment. The subject is much too broad, and the detail of the processes too complex to provide more than an overview of a proposed process. The paper will concentrate on applying the strategy-to-tasks analysis as an adaptation of the current process of force structure development, but will emphasize the change from an equipment-driven process to one of capability acquisition.

The proposed process advocates a marked change in the process of force structure definition, but argues that this change can be accommodated through an an evolutionary variation of the current system.

Requirements of a Force Structure Definition Process

Before proposing a definitive process for the Australian Defence Department, let us determine what the broad characteristics of such a force structure definition process should be. To be credible, the process must be capable of defining not only the types of capability, but also the levels of required forces. The process must thus be capable of measuring present and future force capability and force structure against assessed and future strategic threats.

The major steps are these: define the capability required, define an operational requirement to fulfill that operational capability, define the force structure to meet that requirement, and determine the force levels required to adequately meet the operational strategy. There are thus two main parts to the process: definition of force structure, and an active feedback mechanism process to determine force adequacy to meet military strategy. The adequacy of the proposed force structure development process will be tested against these criteria.

CURRENT PROCESSES

The development of Strategic Policy and Capabilities Guidance as currently practiced is shown in diagram 6.1.[2]

There are two essential points to consider. Firstly, the strategic development process is closed, i.e., there is no provision for external input or promulgation. Secondly, the process requires all inputs to flow through the three services. Even the joint service documents are effectively channeled through single services capabilities papers. This arrangement effectively allows each service to arrive at its own assessment of requirements and priorities. The joint commanders have no formal input (apart from their single-service avenues to their respective service offices), and joint documents are treated separately from those of the services.[3] The main output of the process is guidance for resource coordinators for the preparation of FYDP documents. The impetus and initiative for force structure variation still rests with the service offices in a process largely dissociated from the above guidance process.[4]

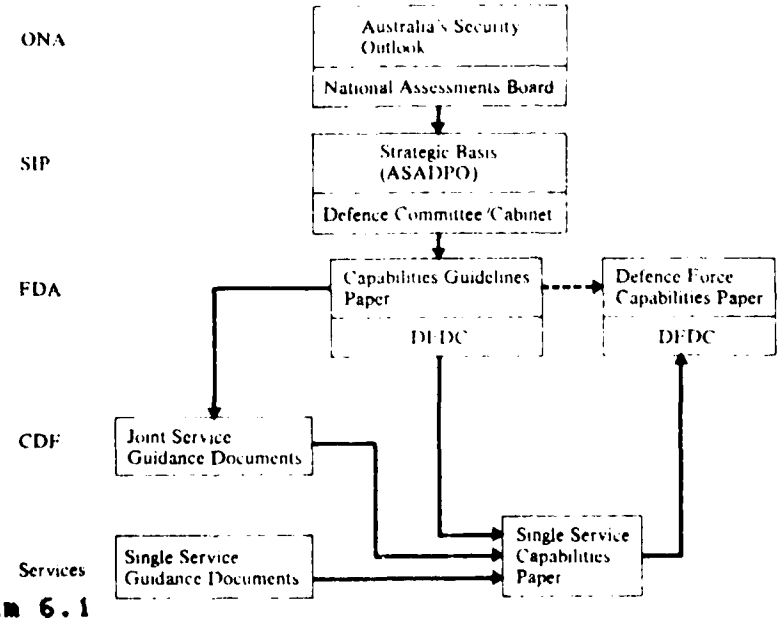

Diagram 6.1

PROPOSED FORCE STRUCTURE DEVELOPMENT PROCESS

This paper proposes a force structure development process for the Australian Defence Department with the following characteristics.

- Conformity with the strategy-to-task analysis process.
- Allowance for the CDF (through HQADF) to directly affect the definition of operational concepts, the development of contingency and logistic support plans and the equipment acquisition process.
- Allowance for the joint force commanders to affect the force structure variation process.
- Provision for a formalized feedback process aimed at assessing the adequacy of the force-in-being to meet operational strategies.
- Retention of the role of the service offices as the providers of professional advice to the major decision-making bodies, including the DOCCC.
- Restoration of the responsibility for the development of military doctrine (under the guidance of the national security authority) to professional military officers, advised as relevant by professional civilian specialists.
- A system bound by financial guidance, but with the overall internal force development priorities set by the men who have the responsibility for providing, deploying, and employing those forces in armed conflict.

The following pages of discussion describes the proposed system. Diagram 6.2 (on page 121), provides an illustrated overview of the process. To help the reader follow the discussion, the diagram can be folded out.

Extra-departmental Processes

The proposed process has an external input from the highest level of government. National security objectives are determined by the Cabinet or, in wartime, the Defence Council. These objectives however, will be the end-result of a subordinate process of preparation by Defence and other departmental agencies. The Defence Force Development Committee (DFDC) may prepare proposals for consideration. In most cases an agency such as the Office of National Assessments (part of the Prime Minister's and Cabinet's Department), through the National Assessments Board (NAB), will provide a strategic assessment.

An integral part of the process must be an allowance for the promulgation of these national security objectives for public dissemination, debate and review. The role of review agencies such as the Joint Parliamentary Committee on Foreign Affairs, Defence and Trade (JPCFADT) and academic institutions is central here.

The NAB will receive advice from the Strategic and International Policies Division (SIP) of the Department. The NAB, with its broader view of the issues facing the nation (societal, political and economic), will incorporate this defence-oriented advice into a net strategic assessment for Cabinet/Defence Council. SIP's advice, augmented by advice from the Force Development and Analysis Division (FDA), will also be provided in a timely manner to the Joint Strategic Planning Committee (JSPC) and the Defence Operational Concepts and Capabilities Committee (DOCCC) to allow for early development of options that will flow from endorsed security objectives.

It is important to emphasize that the formulation of these security objectives, while recognizing economic and political imperatives, must not allow these factors to constrain the process unduly. Where the government does wish to impose constraints, they must be clearly spelled out--there is no utility in defining objectives that are manifestly politically or financially unfeasible. It will be the duty of the Department, through the feedback process, to clearly identify the risks to the nation where the process cannot provide the resources to meet the national security objectives.

National Security Policy Development

The development of national security policy remains a primary responsibility of the Defence Force Development Committee (DFDC). Using the guidance provided in the endorsed national security objectives, the DFDC can formulate national security policy. The development of this policy will build upon the considerations of options from within the Department. It thus represents the highest level of defence decision-making outside the Cabinet. All other decisions within the Department will be contingent upon the policy provided from this committee.

The process thus requires that decision-making at this level have a high degree of political input, as well as professional military and civilian officer input. It is implicit then, that, when the DFDC is considering the endorsement of national security policy, the Minister should chair the meeting.[5] This procedure would ensure, <u>in a formalized process</u>, that the Minister has the opportunity to receive advice from both the civilian and military senior leadership of the consequences of the endorsement of national security policy. Such a procedure is not one that requires the Minister to "serve the department"; rather, is is one that ensures that the issues are addressed in forum, and that all representatives voices are heard in an

environment that supports the Minister in his normal (in this case, crucial) decision-making process.

The DFDC will determine national security policy from options developed within the Department and endorsed by the Joint Strategic Planning Committee, in turn with advice from the DOCCC, SIP, FDA, and Headquarters ADF (HQADF).

The process should be no more than annual, and in the interim, it will depend upon concepts espoused in the White Paper and subsequent documents. Due to the relatively enduring nature of a mature national security policy, there should not necessarily be a nexus between this process and the development of the FYDP. Moreover, if the process were properly and adequately conducted, with adequate attention paid to the feedback achieved from the implementation of policies ensuing from this process, there should never again be a need for external review of the Defence Department. (It is a fair comment that the necessity for external review only arises when the system has been seen to have broken down, as was probably the case before the Dibb Report). The central policy-making process thus takes into account military and civilian professional viewpoints; moreover, through political involvement and the concept of ministerial responsibility, it allows for parliamentary, and thus public, oversight.

Operational Strategy Development

The development of operational strategy will be the responsibility of the JSPC. Civilian input will be minimal, and any such input will come primarily from civilian input into the DOCCC. Primary input will be from CDF's staff in HQADF, with professional military advice from the single-service offices. The relatively low volume of output required of this committee in peacetime will necessitate only infrequent meetings to consider and endorse broad operational strategies. The DOCCC, as part of its role of identifying operational concepts will be responsible for developing operational strategic options for JSPC consideration.

Development of Capabilities, Tasks, and Objectives

Diagram 6.2 indicates that the role of the DOCCC is central to the development of all defence doctrinal policy. This policy will define both defence force capability and the tasks and objectives to be undertaken to achieve the operational strategies endorsed by the JSPC. The DOCCC will define not only the tasks and objectives to be achieved, but, through the process of matching strategy-to-task, will also provide the priorities for the formulation of force structure.

Force Structure Priorities. Referring to the diagram, we see that a major output of the DOCCC is the endorsement of operational concepts, ranked in priority order and matched to those operational and support tasks that form an input into the force structure variation process. These operational concepts, endorsed by CDF and the DOCCC, will be further developed by the service offices before consideration by the Force Structure Committee. The joint process thus establishes the operational concepts to be satisfied, identifies the tasks to be performed, and assigns them to a service office for further development. The service offices, being the source of specialist professional advice, are best placed to develop the proposals through the usual process of defining a deficiency or shortfall in force structure (previously called operational requirement). After consideration by the FSC and the Defence Source Definition Committee (DSDC), the force structure variation can now be incorporated into the FYDP program. There will necessarily be iteration between the FSC and DOCCC, to ensure that whenever financial guidance is exceeded, the FYDP program will properly match defence force priorities. Service offices and the procurement organization will then assume responsibility for the introduction of the force variation into the force-in-being for tasking by the JFCs.

Formulation of Military Tasks and Objectives. The other major output from the DOCCC will be the formulation of operational and support objectives and tasks. Extant objectives and tasks flowing from extant force capabilities will be defined by the DOCCC after development by the HQADF. A major effort of the operational policy side of HQADF (under the Assistant Chief of the ADF (Operations)) would be the preparation of military plans to meet levels of contingencies consonant with the military objectives endorsed by CDF and the DOCCC. These contingency plans will be further developed by the joint force commanders, planning alone or in concert. Tasks, to meet current, planned, and contingency operations, will be issued by the JFCs to assigned forces as required to meet assigned training or operational objectives. Feedback from subordinate commanders and the JFCs will enable the identification of shortfalls in operational capability. The role of joint force exercises, aimed at validating force structure capability and capacity goals, will be crucial to the feedback process.

Measurement of Defence Force Capability

As previously mentioned, the measurement of operational and support capacity against defined criteria will be critical to the process's ability to provide a

credible defence capability. Feedback measurements by themselves are inadequate without a control mechanism to ensure that the system is actually providing the output required. Thus a further function of the DOCCC will be the requirement to define desired levels of readiness.

These readiness levels will indicate not only general levels of force capability in terms of weapons systems and personnel effectiveness, but also levels of sustainability. Logistic supply levels cannot adequately be set unless readiness levels are properly defined. As a corollary, desired levels of force effectiveness necessary to meet increased levels of force activity (i.e. for extended low-level and higher-level contingencies) must also be determined and a plan made to provide for such increased capacity. The next chapter discusses a way of relating force structure to operational effectiveness.

Role of Single Service Offices

In the proposed process, the role of the CDF and his headquarters is central to the determination of priorities for force development and the development of contingency plans to meet specified operational strategies. The role of the single service offices is no less crucial. Once overall priorities and assignments of tasks have been made (under

the strategy-to-tasks analysis process), the single services have the responsibility, using their professional expertise, of raising, training, equipping and supporting the forces for the war-fighting commanders. Moreover, the service chiefs, and their deputies and assistant chiefs have the responsibility for providing professional advice to each of the four major committees (DFDC, JSPC, DOCCC, FSC). The role of the current operational requirements staffs will endure; however they will become specialist advisers to the service chiefs in the translation of operational concepts into force structure requirements. HQADF will need some additional staff to complete the work necessary to identify operational concepts.

DOCTRINAL DEVELOPMENT IN THE PROPOSED PROCESS

If the term doctrinal development can be taken to be synonymous with long-term planning, then much of the proposed model-based process represents a framework for the development of doctrine. Indeed, the endorsement of capability concepts such as the list of operational and support tasks described in Chapter Five represents a first step towards providing prescriptive doctrinal guidance. The development of ADF doctrine can be built upon the concepts incorporated in the strategy-to-tasks analysis

model. Other dimensions to be incorporated within ADF doctrinal documentation would be levels of readiness, sustainability and levels of logistic support, and procedures for the development of lower-level doctrine. All of these doctrinal facets relate to the derivation of force structure for the employment of forces to meet operational strategies and, ultimately, national security policies.

Another subordinate (i.e., derivative) level of doctrinal development relates to the raising, training, maintaining and providing of forces. These functions are the responsibility of the service chiefs; thus, much of the detailed doctrine development work will devolve to the service offices who are best placed to provide such professional guidance.

As mentioned in the CAS tasking for this paper, there is currently no coherent long-term planning process for future air force development. If an ADF doctrinal development process can be satisfactorily managed, then single-service doctrine, in a derivative action, <u>can</u> also be successfully developed. In practice, however, there will be much iteration between layers of doctrine, but given a certain amount of durability of operational strategies, effective single-service planning can be generated.

PROPOSED FORCE STRUCTURE DEVELOPMENT PROCESS

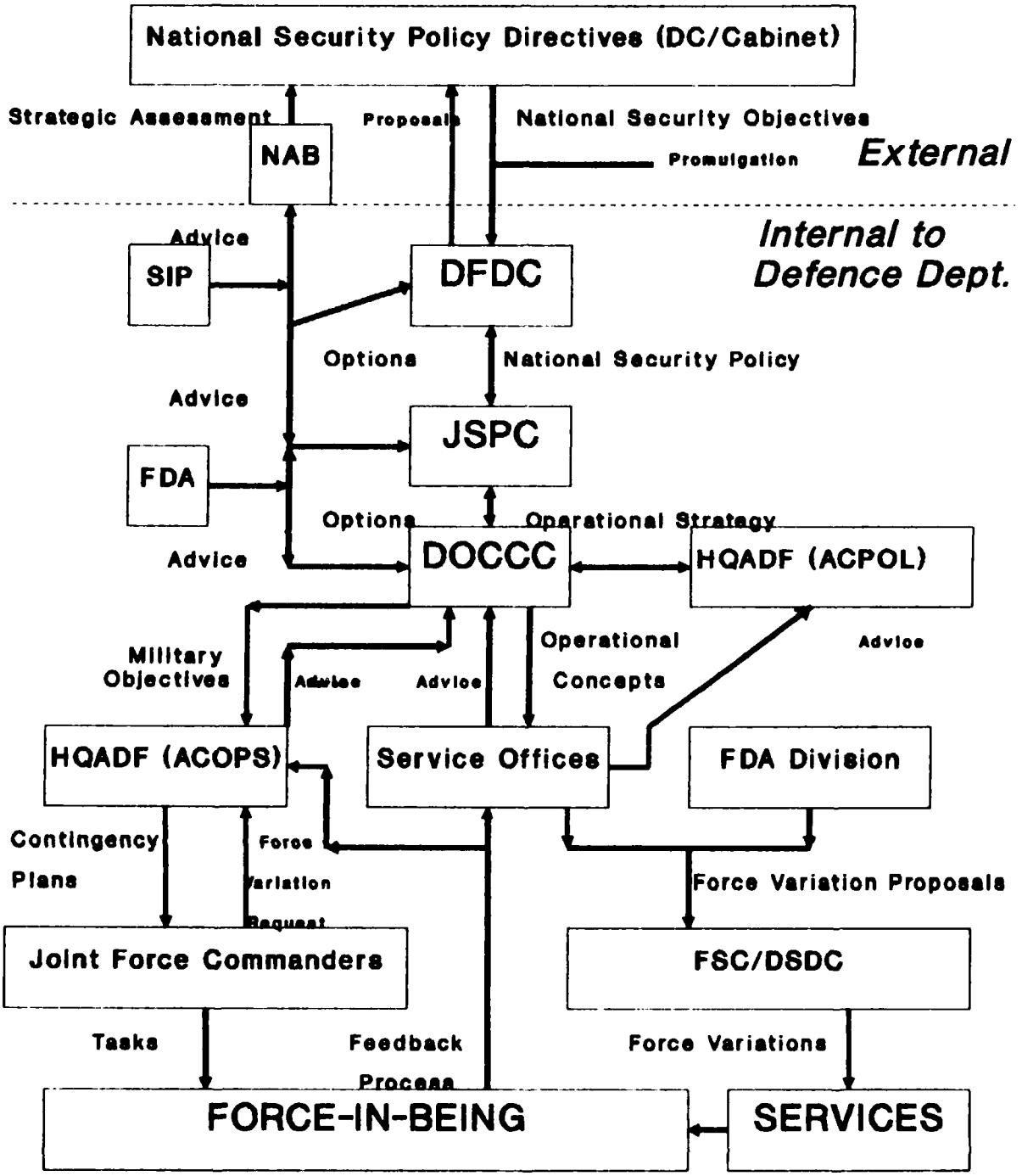

Diagram 6.2

Development of Single-service Doctrine

Endorsement of doctrine related to single-service force development is the prerogative of the service chief. Such endorsement effectively provides the imprimatur for all lower-level activity.

Air Office, under the CAS, is divided into functional divisions. Each division develops and carries out RAAF policy as endorsed by CAS. The divisions, however, are only drawn together through the medium of the CAS's advisory committee, the CASAC. A proposal is under development for this agency to serve as the forum for the consideration and endorsement by the CAS of air force doctrine.

The process would involve the creation of a doctrinal development centre, probably within the office of the CAS, responsible for the synthesis of proposals which would, after CASAC endorsement, become air force doctrine. This procedure, representing a synergy of effort in a holistic approach, would restore responsibility for direction to the highest level of RAAF decision-making.[6] Isolation of the doctrinal centre from divisional tutelage and oversight would reduce the opportunity for bureaucratic inertia and traditional parochialism from interfering with the centre's independence. The CASAC would no longer be an "advisory"

committee, but would become more like the executive board of a corporation, with joint responsibility for decision-making and the concurrent duty to exercise the command conferred on each division chief.

A concurrent duty of the doctrinal centre, after the development of doctrine, would be the promulgation of that doctrine through a process of education. Traditional publication of doctrine for the guidance of planners at all levels will of course be necessary; however, application of that doctrine can only be assured if that doctrine is understood and inculcated in every person associated with the Air Force. Successful corporations in the business world tend to be those that have strong, well-defined corporate aims, with those aims held uppermost in the minds of their workers. An efficient air force should be no different.

SUMMARY

The process defined above is an evolution of the current process. It incorporates the principles described at the beginning of this chapter: it defines capabilities and capacities; it measures current and future shortfalls, and provides a means of addressing them through the variation of force structure; it defines processes for the

application of forces to meet operational strategies. Furthermore, through the development of doctrine, it defines the relationships between the parts of the overall defence process, indicating how direction can be achieved in a complex and dynamic system. The proposed system is rational evolutionary (therefore more likely to be successfully implemented), and it rests upon sound military and modern management principles.

The principles that bind all parts together are those of management and leadership, with their connotations of authority and responsibility. The next chapter will identify useful areas of investigation that will allow for the development of long-term plans using the proposed force structure process. Two areas central to the implementation of the model are the effect of command and control on the process of allocation of tasks and duties, and the development of sound feedback measurement processes and tools.

CHAPTER SEVEN
ADF LONG-TERM PLANNING PROCESS

> Only the man who can achieve great results with limited means has really hit the mark.
>
> Carl von Clausewitz[1]

The previous chapter defined a process for the institutionalization of force structure planning for the ADF, in particular the air component of the ADF. This chapter will focus on a few of the long-term issues faced by defence planners. The current and near-term future air force structure will be described. Through an examination of the process of allocation of air assets, the wider problem of command and control and task assignment among the three services will be addressed, and the chapter will end with a discussion of measures of effectiveness, in terms of the feedback mechanisms described in the process model.

ADF Air Component Force Structure

Australia's air assets, whilst technologically advanced, are large only in comparison with regional forces. If the funds required for the acquisitions enumerated in the 1987 Defence White Paper can be found, the major operational part of the air component of the ADF will comprise 75 F/A-18 aircraft (air defence, ground attack and maritime interdiction), 24 F/RF-111 aircraft (land strike and

maritime interdiction), and 20 P3C Orion (ASW, surveillance and maritime interdiction). More than 100 aircraft will be armed with the Harpoon anti-ship missile; the multi-role F/A-18 will also carry the Sidewinder, the Sparrow and, like the F-111, a range of smart weapons. A line of bases is being commissioned along the northern perimeter of the country, and OTHR, AEW&C and refueling capabilities are being added.[2] While this list of air assets is impressive in regional terms, so too is the area of direct military interest being defended. The reader may care to try and match these resources to the operational and support tasks listed in Chapter Five.

ASSIGNMENT OF TASKS AND ASSETS

The assignment of tasks and assets to the three operational joint force commanders is the singularly most troublesome task facing the higher level defence planner. Interservice rivalries serve no useful purpose and obfuscate the real issue of matching the resources of a small nation to the defence of a continent. This section of the paper will address the problem of the assignment of the air assets in the new joint force environment as an example of a process that can be used to allocate tasks and assets to operational commanders, and assign responsibilities to service chiefs for the development of fighting forces.

Much discussion on Australian force structure has centred on reassignment of extant forces to meet declared roles. For example, naval officers have long argued that, as the RAAF's Maritime Patrol Group's (MPG) primary roles are surveillance and ASW, its P3C assets should be transferred to the Navy. Similarly, arguments have been made that the Navy and Army should have organic fleet air defence or battlefield air capability. Such arguments strike at the basis of justification for an independent air force within the Australian Defence Force, and carried to extremity, could result in a wholesale dismemberment of the Royal Australian Air Force, or at the least the creation of three separate air components. Efforts are currently underway to develop an indigenous Australian Air Force Doctrine that fully explains the necessity for a separate, and coherent air component of the ADF.[3] Needless to say, Australia's defence resources are too small to allow such an erosion of Australia's concentration of air assets, and efforts must be directed to ensure the most appropriate application of current and future ADF airpower.

The process of an agreed assignment of air assets can effectively separate the question of transfer of assets from the wider question of command and control. With such a separation, the desirability of transference can thus be argued on an economic basis, one that is determined by

consideration of broader national interest, rather than one that is clouded by interservice rivalry. As the current Chief of Air Staff has stated:

> Nothing could be so destructive of the developing notion of a single, coherent and integrated ADF as a protracted struggle between Services over roles and missions. ... The ADF has been developed on the general precept that our combat aircraft are owned and operated by the Air Force. The Navy and Army should accept and work with this. For its part, the Air Force must accept that, in operations, its aircraft will often be under the command of officers of the Army and Navy. ... Too often in the past the Air Force has been reluctant to grant the level of command the operational situation and the commander's directives required. Such reluctance has no place in the ADF.[4]

ALLOCATION OF AIR ASSETS

The conduct of military operations in the Australian region is now the responsibility of a single commander--the CDF. He will issue objectives to his subordinate functionally-oriented joint commanders, who will, in turn, issue tasks and assign forces. Allocation of air assets away from the Air Commander to meet the needs of the other two JFCs will be a constant problem in all levels of contingencies. Close coordination with the other JFCs, while critical to the success of any military action, will not be sufficient *per se* to ensure efficient use of air power. Permanent assignment of air will have to be stoutly

resisted to give the Air Commander maximum flexibility in responding to a wide range of concurrent tasks. The brief history of the employment of air power is more than replete with the dangers of doing otherwise.[5]

Proposed Allocation Process

Baker has proposed[6] a process for the allocation of air assets that attempts to balance the necessity for maintaining centralized control of this scarce asset against the demands of the other supported JFCs. His solution is as follows: CDF, with the advice of the COSC, assesses the strategic situation and determines the amount of air power (by rate of effort) likely to be available. He then determines priorities and matches these to the demands of the JFCs. The JFHQs then proceed with component operations with assumed levels of air tasking. Review of allocation will take place only on substantial change in operations.[7]

Assessment of Allocation Process

The above solution appears to be the best possible compromise in dealing with a difficult problem. It clearly endorses the concept of centralized control of air assets by the man best able to make most efficient use of them--the Air Commander, and it also ensures that the Air Commander receives sufficient direction to apply his scarce resources in accordance with the overall campaign or theatre

objectives. Furthermore, the process of requiring supported force commanders to specify missions to be achieved, rather than calling for specific numbers and types of airframes, allows the Air Commander much more operational flexibility. For example, a mix of C-130 aircraft and B-707 may provide a supported JFC with a better and more responsive airlift capacity than if a given number of C-130 aircraft were allotted to his use. In summary, the allocation of force priorities and military priorities by the CDF (advised by COSC) to the JFCs, who in turn consult and coordinate appropriate plans to meet contingencies, is a far better method of ensuring the most efficient use of scarce air assets.[8]

There are, however, significant difficulties in the application of the above process in practice. The strategic process of force prioritization must to some extent be done ahead of the conduct of actual operations, and it will of necessity be highly scenario-dependent. Great care will have to be taken to ensure that overall flexibility of response will not be circumscribed. An automated process, preferably computer-based, will be essential to handle the amount of data required to enable commanders to correctly assign forces to missions.

On the specific task of allocation of air assets to match air tasking, a significant amount of close coordination will be required between headquarters, even if they are co-located (they presently are not). Moreover, each JFHQ will need to be staffed with officers experienced in the planning and conduct of air operations. These officers will act either as component commanders within the JFHQs, or at least as air liaison officers (as provided in existing arrangements).

A strong case can be made that an air component commander, perhaps at Deputy Force Commander level, should be established within both Maritime and Land Command HQs. Such a commander would command all air assets provided under operational command or control from the Air Commander. His expertise would be essential to ensure the proper employment of assigned or allocated forces. Such arrangements are heavily dependent on the provision of trained and experienced manpower--probably aircrew officers who may be required for the actual conduct of operations.

The development of effective automated Command and Control systems, timely and reliable intelligence, and fast and adequate communications will mitigate the manpower requirement and speed planning and the reactive process of force prioritization and assignment. Co-location of JFHQs will assist the process, but the distance from a likely co-

located HQ (Sydney or Canberra) to the expected scene of operations may be a more significant factor in assuring the adequate matching of assets to tasks. The establishment of a planned new regional command (Northern Command or NORCOM)) will ameliorate the situation but only at the expense of compounding the recently-simplified command arrangements and increasing manpower costs.

The proposed arrangements for the allocation of air assets retains the concept of unity of command at the highest level and provides the Air Commander with the necessary protection for the efficient application of air power. Such protection is assured by the assignment, at the highest level, of strategic force priorities for the employment of forces by subordinate joint force component commanders. The allocation of air assets by the Air Commander to achieve mission and task force objectives allows him flexibility in the use of those assets. The system of assignment can be cumbersome and lack responsiveness unless adequate and speedy systems are in place at supported headquarters. The challenge for the ADF is, through the use of a realistic and sustained program of exercises, to develop and maintain such systems--given the level of available forces, the risks to the security of the nation are otherwise too great.

The preceding discussion on the assignment of air assets is an example of the application of the principles espoused in the previous chapter for the assignment of operational and support objectives and tasks. The Baker report on command and control arrangements contains a rational approach to the assignment of air assets--given sufficient goodwill and cooperation between the services, there should be no serious impediment for the processes described in chapter six to be implemented. As previously mentioned, an evolutionary approach to the assignment of objectives and tasks, through the process defined in the strategy-to-task model, offers the best opportunity of ensuring the maximization of defence capability with constrained resources.

MEASUREMENT OF DEFENCE CAPABILITY

The strategy-to-tasks model describes those roles, tasks and objectives necessary to secure superiority in operational actions by the ADF against an adversary. While activities during peacetime have been addressed only briefly in this paper (see chapter six), this paper implies that all action by the defence forces--other than operational activity--should be limited to preparation for, or contribution towards, operational (or war-fighting) activity.

This preparation can take many forms, ranging from operational training during live-firing exercises, through the preparation of logistic support, to the development of an adequate defence industry structure for the long-term support of operational forces. Such preparation does not preclude the use of the ADF in its deterrent capability--the maintenance of a credible defence capability in peacetime is by far the best way of ensuring that such a force will never be used. The elements of a peacetime organization necessary to support long-term operational activity are well-defined,[9] and I will limit discussion of the development of long-term objectives to the operational components of the ADF air element. Suffice to say, that every defence force activity must be capable of being justified on the basis of its individual contribution to the generation of ADF defensive capability. A challenge then, for the defence planner is to measure how each force element can contribute to overall ADF effectiveness.

Definition of Objectives & Activities

The concept of the ADF as a matrix of force groups, as mentioned in chapter five, carries with it the notion of contributory objectivity. This notion implies that every force element contributes towards the achievement of certain objectives for the force group as a whole. A procedure of

matrix analysis, as described on page 70, can be applied to all force elements to determine each unit's contribution to the whole.

The assignment of operational and support objectives and tasks to force elements is a first step in the process of measuring defence force capability. Ideally, such determination should be applied from the top downwards, and objectives assigned to each force element. (The determination of tasks and objectives for force groups will of course be an output of the strategy-to-tasks analysis.)

The determination of activity levels for each force element is the second step. The attainment of operational capability requires adequate training and logistical support. Such training and support levels are themselves dependent on the amount of activity required to support them. Achievement and maintenance of operational capability requires continual practice, and therefore the expenditure of much activity. (After all, this is really one of the major reasons for maintaining a standing defence force in peacetime).

For example, the attainment and maintenance of airborne ASW skills for the MPG is a difficult and demanding task. Much training effort, and the provision of airborne

stores (practice torpedoes, airborne sonobouys, and so on) is required. Effort expended on a difficult training requirement may seem out of balance with other activities due to their simpler training requirements (e.g. those required for general surveillance). Nevertheless, a certain minimum standard of activity is required for every operational crew member to ensure that an adequate extant base is maintained, as well as providing an experience base for possible future expansion.

The determination of activity levels thus becomes an important part of the total process of measuring ADF effectiveness. In the case of aircrew readiness (i.e., an individual measure of force element capability), activity levels can be readily determined from individual training requirements. Thus, activity levels such as flying hour allocations can readily be related to achievement of operational capabilities. Conversely, decreases in flying hours can be related to decreases in operational force element effectiveness and subsequent decreased capability to meet assigned operational and support task and objectives levels.

The third step in the process involves the allocation of resources to meet defined activity levels, which, in turn, contribute to assigned force element objectives, and

ultimately contribute to the achievement of operational and support strategic objectives. A well-defined nexus between resources, activity, and the attainment of operational objectives can thus be determined, in which resource expenditure can be explicitly linked to national security goals.

Measures of Effectiveness

A logical relationship between resource expenditure requirements, force element activity, assigned force group tasks and objectives, and the achievement of nation security goals is a necessary pre-requisite for the determination of measures of defence effectiveness. Once we understand the relationship we can measure the contribution of each force element to overall defence capability.

Broadly speaking, there are four components that contribute to defence effectiveness. These are: force structure, readiness levels, capacity and doctrine. Force structure is taken to mean the type and number of units of defence force capability (e.g. ships, aircraft, brigades of troops). (Organization of forces is assumed to be part of the concept of force structure.) Readiness levels refer to the general ability of individual force structure elements to achieve stated objectives. Capacity refers to the

ability of force structure units to sustain operational capability, and also refers to the total force's ability to achieve strategic superiority. Doctrine is the means of relating each of the other three factors into a coherent whole and determines how force structure will be applied to achieve operational strategies.

The contribution of each of these three components can be measured--some more easily than others. The feedback process mentioned in the last chapter must ensure that it takes into each factor into account. The adequacy of force structure and readiness levels can be measured most readily by comparing each the output of each force elements against a pre-determined level of effectiveness. For example, the Strategic Reconnaissance Group (SRG) may have a declared level of strategic offensive air strike response assigned to it under the strategy-to-task analysis model. Numbers of trained crews and mission-capable aircraft (i.e. readiness levels and force structure) can be determined and compared against the desired level of defence responsiveness.

The assessment of the contribution of doctrine and capacity to overall defence effectiveness is not so easy to determine. The efficacy of sound doctrine, and the assessment of force adequacy can really only be measured in

operational action, however, properly-constructed defence exercises can be a good peacetime substitute.

In summary, the measurement of defence capability relies upon two processes. The establishment of realistic guidelines for the raising, maintenance and support of force elements to meet assigned tasks constitutes the first process. The development of quantifiable factors of performance, compared to the previously-set guidelines represents the second, iterative process. Both processes can be accomodated within the model described in chapter six, indeed the integrity and credibility of that model requires that the feedback process be honestly and rigourously applied.

SUMMARY

This chapter has shown, through an example of assignment of air assets to defined tasks, how a process of assignation of operational and support tasks and objectives to force groups can be accomplished. It has also shown how the contributions of individual force elements can be related to overall ADF strategic objectives. Such processes can greatly aid the long-term ADF planning process.

These two processes are central to the application of the strategy-to-tasks model as a useful tool for the defence planner. In essence, the strategy-to task model defines the force structure necessary to achieve desired operational objectives, and the feedback process defines the ability of the planned or extant force structure to meet those operational strategies.

CHAPTER EIGHT
CONCLUSION

> The RAAF's history is one of accommodating change. Today is no exception. Adapting successfully to change while holding a tight rein on resources presents a great challenge to all RAAF members, not just to management. The RAAF's reputation as a skilled, competent and modern air force is at stake.[1]
>
> The RAAF Plan - 1988

Australia faces some difficult choices in the development of its defence forces. The postulation, over the past 10 or 15 years, of a relatively benign environment led to the formation of a collective mindset of apathy and indifference towards the establishment of a credible Australian defence force policy. The recent maturation of Australian defence thinking since 1985, leading to the development of an independent defence posture, has raised new challenges for the defence planner.

Australia now realizes that it must promote its own interests in the world, and must assume a greater level of self-reliance. It has also reluctantly realized that it must develop a shared sense of strategic interest with its regional neighbours. Australia can no longer rely upon the automatic support of great and powerful allies, whose interests may no longer be congruent with her own interests. Defence interests that contribute to closer

regional relationships are but one part of the web that must be woven with Australia's asian neighbours.

At the same time, Australia has realized that the traditional basis of defence force structure, that of providing useful military capabilities as part of another nation's larger force structure, is no longer viable for the development of a credible defence force. The assumption of a self-reliance posture, and the responsibility that flows from that posture is a sign of national maturity. However, the potential costs of such a posture are great.

The publication of the seminal Dibb report, and the ensuant White paper on defence have set the tone of the defence debate. The Cross report has made a useful contribution to the standard and level of defence debate, and the public is now better informed than ever before. The problem, however, remains: how do you provide defence for a small western nation attempting to occupy a bountiful continent in a region of burgeoning population growth and demand for scarce natural resources?

Dr. Paul Dibb has stated that his report "was the result of the inheritance of decades of pre-conditions, and as a result it was a document of compromises". Similarly, this paper has assumed a similar pragmatic approach, and has

not proposed wholesale changes from the *status quo*. It has attempted to show that, with a refocused viewpoint that matches Australia's new strategic outlook, and a systematic approach, a credible process of force structure definition is achievable. But while the institutionalization of the process is pragmatic, its concepts assume a new way of doing business. This is not a proposal that achieves its goal by modification at the margin, although if it is accepted, that is undoubtedly how force structure will have to be varied over the next few years.

The paper has argued for a concept that relates force structure to operational capability through a strategy-to-task analysis. This approach allows for the development of a rational, comprehensive and coherent approach to the difficult task of building a balanced and credible defence force. Under the pressure of continued financial constraint, the current process of defining force structure through the submission of single-service-sponsored equipment proposals must eventually give way to one that relates, in a systematic top-down process, the acquisition of defensive capability to the achievement of strategic objectives.

This paper has proposed a process that identifies operational tasks and objectives and relates them to the acquisition of force structure. It proposes an evolutionary

approach to the institutionalization of the process within the current decision-making process of the Australian Defence Department. Additionally, it has proposed a method of identifying shortfalls in current and future force structure by the establishment of a feedback process which relates the performance of individual force elements to the overall capability of the ADF.

The model is not prescriptive, it describes an analytical process which, given the right inputs can produce definitive outputs of force structure strengths and shortfalls. It seeks to return to the military commander, the CDF, as advised by the service chiefs and the joint force commanders, the right and duty to specify the balanced force structure necessary for the defence of Australia. Through the concept of assessing, through a feedback process, shortfalls in current and planned force structure, it enables defence planners to assign priorities to the acquisition of new capability. Such a concept is critical as long as defence expenditure is constrained within artificial financial boundaries.

An important concept in the institutionalization of the proposed hierarchical model is the concept of a contractual relationship between the operational commanders, and the professional service chiefs. A process of

assignment of tasks and objectives between the three services is the only rational approach to the allocation of scarce resources. The service chiefs, having proposed a well-balanced, credible force development program, that has support of the war-fighting JFCs, can make firm long-term plans for the development of their services. Similarly, the JFCs can continue to make rational plans for the employment of that new force structure that is firmly based on rationality and reality.

Two other important recommendations from Chapter Six bear reiteration. The chairmanship of the DFDC by the Minister, when appropriate, restores ministerial and parliamentary responsibility, in a formalized manner, to the process. The current diarchic system of responsibility does not allow for an open system of conflict resolution. Feedback loops within the department, (using the model on page 121) return to the DOCCC. When conflicts between services, or between civilian and military officers cannot be resolved at this level, they must inevitably be elevated to the DFDC. The final authority for conflict resolution within the department, must reside in the Minister. A formalized process, ensuring an adequate, timely, and fair resolution of conflict can be assured with this arrangement. Similarly, the establishment of the Joint Strategic Planning Committee, will provide an agreed, coordinated,

authoritative focus for the development of prescriptive war-fighting doctrine.

While the paper discusses operational capability at length, it has often returned to the concept of capacity and logistical sustainability. Clearly, the forces in existence, and those planned, are inadequate for any action on a scale larger than those considered necessary to be applied in any currently credible contingency. Such discontinuity in thinking is explained in the Dibb report which recommends that that the concept of warning time should play an important role in striking a balance between defence preparedness, and the resources likely to be applied to Australia's defence.[2] Note, however, that the concept of warning time is only useful when it is heeded.[3]

The challenge then is to decide what is the necessary trade-off between defence preparedness, levels of readiness of extant forces, expenditure for the future, and the risks associated with delaying defence expenditure until there is a significant change in the strategic environment. An honest application of the concepts implicit in the processes proposed in this paper will go a long way towards identifying a credible defence force structure for Australia.

NOTES AND ACKNOWLEDGMENTS

NOTES ON CHAPTER I (Pages 1 - 7)

1. Kim C. Beazley, The Defence of Australia 1987, (Canberra: Australian Government Publishing Service, March 1986), p. 1.

2. Australian Government Information Service: Promotion Australia - Australia faces the 21st Century, (New York, NY, 1986.)

3. Paul Dibb, Review of Australia's Defence Capabilities, (Canberra: Australian Government Publishing Service, Canberra, 1986), p. 2.

4. Ibid., p. 2.

5. Australia ranks about sixteenth in terms of world trade. The ratio of Australia's trade to GDP is about 20 per cent. "Survey of Major Western Pacific Economies", Australian Government Publishing Service, Canberra, 1983. p. 113.

6. Beazley, The Defence of Australia 1987, p. 2.

NOTES ON CHAPTER II (Pages 8 - 23)

1. Dibb, p. 1.

2. Prime Minister John Curtin, the newly-elected Labour wartime leader, made this celebrated appeal on December 27 1941: "Without any inhibitions of any kind, I make it quite clear that Australia looks to America ... for the maintenance of its security." " United States troops began arriving in Brisbane on 22 December, 1941. Australia and the United States, Australia Information Service, 1982.

3. The Alliances and Alignments of the United States, pp. 337-339.

4. Lewis Young, "ANZUS: The politics of an Alliance." Asian Defence Journal, (December 1982): p. 67.

5. The ANZAC pact with New Zealand dates from 21 January 1944. Australia is also a signatory of the Manila Pact dating from 8 September 1954 (with France, New Zealand, Pakistan, the Philippines, Thailand, the United Kingdom, and the United States) and the Five Power Defence Arrangements (with the United Kingdom, the United States, New Zealand, Malaya and Singapore). It belongs too, to the South Pacific Forum. But it is not a member of ASEAN (Association of Southeast Asian Nations).

6. US-Australia Joint Communique, 11 August 1986.

7. Although all three branches of the Australian services operate aircraft, the bulk of air assets reside with the Air Force, and this term can be assumed to be synonymous with the forces in the Royal Australian Air Force (RAAF)). To emphasize the jointness of the currently re-structuring ADF, the term air component will be taken to mean all air assets of the ADF.

8. Kim C. Beazley, Self-Reliance and Cooperation: Australia's Regional Defence Policy. Parliamentary Statement by the Minister for Defence to the Australian House of Representatives on 23 February 1988.

9. David Barber, staff writer for the Sydney Morning Herald on 7 December 1988 wrote "... they (ASEAN) are putting more relative weight on high-technology maritime forces than on low-technology land forces".

10. See Sheldon Simon, "The Maritime Strategy and America's Pacific Allies", in Resident Supplementary Readings, General Purpose Forces Employment, Course DS 612, Academic Year 1988 - 89, Air War College, 1988, p. 41.

11. For a discussion of regional states posing a potential threat to Australia, see Paul Dibb, Review of Australia's Defence Capabilities, p. 33.

12. India's independence of action and naval expansion is causing considerable concern within Southeast Asia, leading perhaps to a compensatory build-up by other regional navies (at least Indonesia and Malaysia). Some observers see a reduction in Australia's regional power standing unless it increases its spending above already increased levels. "Australia's Strategic Environment", Defense and Foreign Affairs, August 1988, p. 76.

13. An example of the level of bilateral exercising is the January 1989 joint and combined exercise "Golden Fleece," the biggest New Zealand defence exercise conducted since WWII. This exercise with 7,800 troops from eight

countries (including the UK, Australia, but not the US) is aimed at testing New Zealand's ready reaction force's ability to mobilize and respond to armed attack. Radio Australia news transcript, Washington, 4 January 1989.

14. Australia and New Zealand are considering the building of up to 12 frigates (8 for Australia, and up to 4 for New Zealand). The program will reinforce New Zealand's ability to maintain a blue-water navy capability which could help Australia with defence in the South Pacific for several decades. Notwithstanding the economic benefits to Australia that would flow from this program (lower unit costs to both, and an increased total-project outlay) Australia effectively sees New Zealand's involvement as an indication of that government's commitment to, as Australian Defence Minister Beazley stated, "assuming a proper role in the total relationship with Australia". Canberra Times, 5 December 1988.

15. Parliament of New Zealand, Report, Review of Defence Policy 1987. New Zealand Government Printer, Wellington, 1987, p. 16.

16. Beazley, The Defence of Australia 1987, p. 5.

17. Paul Kennedy in his book The Rise and Fall of the Great Powers (New York: Random House, 1987), p. 532, has written: "The United States risks 'imperial overstretch.'" The sum total of the United States' global interests and obligations is nowadays far greater than the country's ability to defe... them all simultaneously.

18. On the issue of burden-sharing, a Congressional panel has stated, "The panel states in the strongest possible terms that Europeans had better be prepared to defend that territory without a large-scale United States government commitment." House Armed Services Committee, quoted in an editorial in the bristian Science Monitor, 27 December 1988.

19. Discriminate Deterrence, a Pentagon report, argues for a strategic reexamination of policy. It calls for less focus on central Europe and "emphasize[s] a wider range of contingencies in military planning" including Latin America and the Pacific Basin." This reexamination is obviously seen as a counter to the Soviets as they devote more attention to the Far East. (As quoted in an editorial in the Christian Science Monitor, 27 December 1988).

20. See Coral Bell, "United States Military Power in the Pacific: Problems and Prospects: Part II" in Readings, Book 2, Regional Issues, Course NS 623, Air War College, 1988.

21. John Camilleri, an expert writer on the ANZUS alliance writes "What assistance the United States provides in the event of regional conflict is more likely to be determined by America's perception of its own interests as defined at the time by the administration of the day, subject to congressional approval, rather than by any strictly legal interpretation of the ANZUS treaty ... outside assistance cannot form a reliable basis for Australian Defence Planning." (John Camilleri, The Australia, New Zealand, US Alliance: Regional Security in the Nuclear Age, Boulder, Co., Westview, 1987, p. 156.)

22. Senator Gareth Evans, Australian Minister for Foreign Affairs, as reported in an interview with David Humphries published in the Australian, 9 September 1988.

23. Kim C. Beazley, Thinking Defence: Key Concepts in Australian Defence Planning, The Roy Milne Memorial Lecture given in Perth on 6 November 1987, published in Australian Outlook, August 1988, p. 74.

24. Despite the current cordial relationship between the US and Australia, there are, as in any relationship, a few difficulties. Predominantly these are: subsidized wheat sales which while helping depressed US farm economy are angering other major agricultural exporters including Australia, Australian policy initiatives to get the US to sign the Treaty of Raratonga, and its implicit criticism of the French nuclear-testing program in the South Pacific, Australian efforts to gain US endorsement of a UN proposal critical of French administration in New Caledonia, US reluctance to provide financial assistance to Oceania, and the continuing ANZUS rupture. Robert G. Sutter, "Australia, New Zealand, and the Pacific Islands: Issues for U.S. Policy" (Congressional Research Service. March, 1987.)

25. Recent opinion polls relating to the continuance of Australia's Defence role with US are as follows:

	Dec87	Sep88
Support	67%	69%
Oppose	16%	18%
Neither	18%	13%

Sample size 1300. Source: Defencetrac Polls (Frank Small & Associates, Sydney, 1988), as reported in Pacific Research, November 1988.

26. Prime Minister Bob Hawke managed to obtain, from his Labour Party, which has traditionally opposed the US bases, endorsement of a new 10-year treaty for the bases, with termination by either party subject to a three year notice.

The average life of an Australian government is just over 2 years.

27. But the sentiments in the Guam doctrine have been reiterated by successive US administrations. In November 1984, Defense Secretary Casper Weinberger reaffirmed the requirement for national self-reliance: "we cannot substitute our troops or our will for theirs." Paul Dibb, Review of Australia's Defence Capabilities, footnote to p. 2.

28. It is also useful to note that this change in US strategic policy allows for a protective "nuclear umbrella" to be provided to an allied state threatened by a nuclear power, and for armed intervention to be provided where US security or *regional interests as a whole* are threatened. In all other cases, however, the nation directly threatened must carry prime responsibility for its own defence. J. Camilleri, The Australia, New Zealand, US Alliance: Regional Security in the Nuclear Age, p. 16.

29. Ibid.

30. Ibid.

31. Dibb, p. 26.

32. At a seminar hosted by the Strategic and Defence Studies Centre at the Australian National University entitled "Challenge of the 1990's' Dr. Robert O'Neill stated on 6th December 1988, "Members of alliance groupings, both east and west will see each other more as economic rivals unless they have entered into a regional cooperative arrangement such as the European Community." The Bulletin, 6th December 1988.

33. Interview with former US Secretary of State, Dr. Henry Kissinger, as reported in an article by Bryan Boswell in the Australian, 9 January, 1988. Kissinger stated "Australia's distance is no longer a protection ... Australia can either try to join up with one of those Asian groupings or it can establish closer ties with the US ... It doesn't have to agree with America's policies globally, but our long-term interest in Asia seem to me to run parallel will be trading blocs, not a GATT world."

NOTES ON CHAPTER III (Pages 24 - 48)

1. Carl von Clausewitz, On War, edited and translated by Michael Howard and Peter Paret, Princeton, Princeton University Press, 1984, p. 87.

2. United States Joint Chiefs of Staff, JCS Pub. 1, DOD Dictionary of Military and Associated Terms, as quoted in "Aerospace Doctrine: Assignment or Responsibilities for Development of Aerospace Doctrine", Resident Supplementary Readings, General Purpose Forces Employment, Course DS 612, Air War College, 1988.

3. The reader can assume that all discussion of development of policy options will be based on endorsed national security objectives, viz, the concepts espoused in SB 83 as promulgated in the only open source of such guidance, the 1987 White Paper on Defence.

4. Dibb, p. 12.

5. Ross Babbage, Rethinking Australia's Defence, (St. Lucia, Queensland, University of Queensland Press, 1980), p. xvii. and p. 137.

6. Dibb, p. 2.

7. In 1974 the Australian Department of Defence was re-organized in accordance with a report written by the then Secretary, Sir Arthur Tange. Dibb in his report wrote in 1986, "it was ... fundamental that advice to Government should not fall into military and non-military compartments." An article in the ournal of the RUSI follows this quote with, "but there are many who contend ... that this was almost inevitable. Indeed there are some more cynical commentators who believe that this was the intent of the [Tange] Report". "Force Structure", "Some Observations on the Dibb Review of Australia's Defence Capabilities, Journal of the RUSI, Vol. 8, No. 2, June 1986, p. 1. ("Force Structure" is the pseudonym of a senior (Army) staff officer.)

8. Dibb, p. 29.

9. Ibid., p. 2.

10. Ibid., p. 5.

11. Ibid., p. 6.

12. Ibid., p. 50.

13. Andrew Mack, Defence versus Offence: The Dibb Report and its Critics. (Canberra, Working Paper No. 14, Peace Research Centre, Australian National University, September 1986.) p. 4. Mack uses these definitions of offensive action before developing his thesis that offensive strategies have inherent destabilizing influences, and that defensive strategies may be as efficacious as offensive ones.

14. Dibb, p. 7, argues that "This review supports retention of the F-111 strike force with a minimum update program designed to sustain the aircraft in service until about the mid-1990's (emphasis added) when decisions about their future is required".

15. Beazley, Thinking Defence: Key Concepts in Australian Defence Planning.

17. Significant force structure changes planned for the ADF include a restructuring of naval facilities with the upgrade of the West Australian base of HMAS Stirling and the steady build-up of naval forces there to 21, including submarines, destroyer escorts, frigates, patrol boats, minehunters and support vessels. (Beazley, Press release, West Australian, 15 November 1988). Australia is also purchasing new Black Hawk battlefield helicopters, six large conventional submarines, and additional Sea Hawk helicopters for its FFG-7 frigates. The F-111 fleet will be upgraded at a cost of $220m. (1988 Australian Budget speech.) The submarines are Swedish Type 471, to be built in Australia at a cost of A$6 billion. A dozen ANZAC light frigates will also be built. (Defence and Foreign Affairs, August 1988), p. 74. The Minister has announced that AEW&C aircraft will be purchased, but no introduction date has been announced.

17. This point was made in a paper presented at a conference on "Air Power in the Defence of Australia", Air Vice-Marshal E.A. Radford, and Rear Admiral L.W. Knox, "Land-based Air Power in the Defence of Australia", as published in Desmond Ball, Ed., Air Power: Global Developments and Australian Perspectives, Chapter 22. (Rushcutter's Bay, Australia, Pergamon Press, 1988.)

18. Mack, p. 4.

19. Parliament of the Commonwealth of Australia, Report, Joint Committee on Foreign Affairs, Defence and Trade, The Management of Australia's Defence, "The Cross Report", Australian Government Publishing Service, Canberra, 1987.

20. The terms of reference of the Cross Report were "to investigate and report on the management of the department

of defence and the ADF, with particular reference to the determination, management and implementation of Defence policies, and the suitability of the existing defence organization for peace and war." Cross, p. iii.

21. Ibid., p. xxi.

22. Ibid., Chapter Five (Defence Management and Decision-Making Issues), and Chapter Eight (Command and Control of the ADF).

23. There were three problem areas identified by the committee which stemmed from the size and complexity of the department. These were "inadequacies in political supervision and control of defence policy and activities, the inadequate integration of functions across the defence establishment, and ... problems of over-staffing and over-ranking ..." Ibid., p. xxv.

24. Ibid., p. xxviii.

25. United States Government, Office of the President of the United States, National Security Strategy of the United States, (Washington, January 1988).

26. Cross, p. xxxv.

27. Ibid., p. xLi.

28. Brigadier J.S. Baker, Report of the Study into ADF Command Arrangements, (Canberra, HQADF, March 1988).

29. The three joint force commanders are progressively assuming responsibility for joint military force operations, and their responsibilities have been redefined for clear lines of command. Operational force planning is to delegated to the joint commanders, and HQADF will concentrate on strategic planning. A Commander Joint Forces - Australia is to be appointed for higher level contingencies and will be directly responsible to CDF. Kim C. Beazley, Government Response to the Report of the Defence Sub-Committee of the Joint Committee on Foreign Affairs, Defence and Trade on the Management of Australia's Defence, Presentation to The House of Representatives, Canberra, 3 June 1988. Hansard, Canberra. 3 June 1988.

30. Baker, Chapter 1, p. 2.

31. Ibid., Chapter 8, p. 4.

32. See General William W. Momyer's Air Power in Three Wars, in particular Chapter II, "Command and Control of Air

Power," for a description of the necessity to avoid 'penny-packeting' of air power to supported commanders.

33. Ian Sinclair, "Australian Defence: The Opposition View," Pacific Defence Reporter, Annual Review Edition, Dec86/Jan 87, p. 207.

NOTES ON CHAPTER IV (Pages 49 - 66)

1. Ascribed to a famous Australian Public Servant.

2. A useful overview of the Australian FYDP process is given in Chapter Five of : Parliament of the Commonwealth of Australia, Report, Joint Committee of Public Accounts, Review of Defence Project Management, Vols. 1 and 2, (Australian Government Publishing Service, Canberra, 1986), pp. 45-51.

3. The 1989/90 budget of A$7658m shows the following breakdown of major Defence budget components: new equipment 30.6%, manpower (service and civilian) 35%, operating costs 13.7%, facilities 6.5%. (Pacific Research, November 1988.)

4. "The Defence Operational Concepts and Capabilities Committee (DOCCC), chaired by the Vice Chief of the Defence Force, was established late last year to carry out this task. It will consider such matters as the surveillance of our sea and land approaches, protection of the civil and military infrastructure in the north, the protection of ports, focal area and coastal shipping, and how we should respond to raids by small ground parties." Kim C. Beazley, in Government Response to the Report of the Defence Sub-Committee of the Joint Committee on Foreign Affairs, Defence and Trade on the Management of Australia's Defence.

5. The 1987 Defence White Paper indicated that its force structure objectives could be met if a continuous figure of 3% of GNP Defence expenditure could be achieved. That figure has yet to be reached. "The 1989/90 figure is A$236m more than the previous year, a real increase of one half of one percent, but still well short of the sustained 3% annual real growth in defence expenditure assumed in the projections of the 1987 Defence White Paper. In spite of this and last year's shortfall (1% real reduction), Defence Minister Beazley has argued that the momentum of the White Paper is being maintained primarily through savings from ongoing rationalization of the Defence establishment." (Pacific Research, November 1988).

6. The Electronic Warfare Environment Simulator has been in and out of the FYDP at least since 1975.

7. There has been debate within the Central Procurement Organization (CPO) of the Department about whether to treat large programs such as the submarine project as national projects, and whether that the Defence Department should be funded differently to allow for the massive investment in Australian industry required for the development and building of these new high-technology weapons. Argument supporting the notion of separate funding for the acquisition of such new equipments centres on the fact that significant investments in Australian industry represent an increase in the Australian national asset base, and a variation in the usual percentage growth formula for funding defence should be varied to take these effects into account. The figures for the submarine are those quoted in "The Australian", Special Defence Report, 7 October 1988.

8. The continuing political dialogue between the Australian and New Zealand governments on the timing and numbers of ANZAC light patrol frigates is an example of the dislocations that can be caused in a FYDP process that is tightly capped at a given level of spending, but yet must accommodate large variations in spending.

9. Joint Committee of Public Accounts, Review of Defence Project Management, p. 47.

10. See Cross for a full description of the difficulties in moving major equipment proposals through the FYDP. Chapter Six in particular describes the failure of the system when it states: "the existing process ... is "back-to-front," as the definition of capabilities starts with the single services. This procedure fails to ensure the primacy of the overall force needs and can lead to questionable practices as the 'equipment replacement' syndrome." Cross uses this argument to justify movement of operational requirements staff to HQADF. Cross, p. 223.

11. Ibid., p. 190. The last point is further developed in subsequent parts of this chapter in terms of the guidance for the development of capabilities. The suggestions made are congruent with changes subsequently implemented, the differences between Cross and the Department being limited largely to the agency or committee responsible.

12. Kim C. Beazley, Government Response to the Report of the Defence Sub-Committee of the Joint Committee on Foreign Affairs, Defence and Trade on the Management of Australia's Defence, p. 26.

13. The legislative basis on which the defence organization rests lies in the Defence Act of 1903, particularly with respect to the administration of the Defence Force. The powers and responsibilities of the Secretary arise from legislative bases in the Public Service Act and the Audit Act. The basis for the relationship between the Secretary and the CDF lies in Section 9A of the Defence Act which says that "they shall jointly have the administration of the Defence Forces" and "any other matter specified by the Minister". For a full discussion of the topic, see Alan J. Behm, "Australian Defence Policy: The Game and the Players", Journal of the Australian Naval Institute, (November 1986), pp. 21-28.

14. On the subject of reconciling differences between the civilian and military heads of the department, the Utz report noted: "the[r]e are mechanisms for mutual consultation and the reconciliation of views. They facilitate informal communications at the working level which can range throughout the hierarchy up to the Secretary and CDF[S]." Defence Review Committee (the Utz Committee), The Higher Defence Organization in Australia: final Report of the Review Committee, (Sydney, 1982), par. 3-65.

15. Ibid, p. xiii.

16. Cross, pp. 93-116.

17. Ibid., p. 125.

18. Beazley, Government Response to the Report of the Defence Sub-Committee of the Joint Committee on Foreign Affairs, Defence and Trade on the Management of Australia's Defence, p. 4.

19. Ibid., p. 26.

20. Ibid., pp. 7 and 27-28.

21. "The Force Structure Committee (FSC) is a key element in the process, along with the DOCCC. Each committee has an individual and clearly defined role and the Government cannot see any merit in trying to combine the essentially different roles of the FSC and the DOCCC." Ibid., p. 27.

22. Beazley, Thinking Defence: Key Concepts in Australian Defence Planning, tells us that in a recently declassified document from the 1950's, defence self-reliance was postulated, but that posture was rejected in favour of preparing for nuclear defence including the use of nuclear weapons (perhaps by Australia), against the threat of invasion by international communists, in particular China.

23. Ibid, p. 5.

24. Beazley, The Defence of Australia 1987, p. 32.

25. Baker, Chapter 5, p. 2.

NOTES ON CHAPTER V (Pages 67 - 106)

1. Battlefield helicopters have recently been transferred from the Air Force to the Army. This capability, before the transfer, a major part of the Tactical Transport Group of the Air Force, will be part of the Army's overall capability. The Army will fly and operate the aircraft, but it will depend on the Air Force for second-level logistical support and basic and advanced aircrew training. This is a prime example of cross-service support of an ADF Force Group during normal peacetime operations. However, it begs the question whether, in the event of procedures that allow for the assignment of air assets to a land force commander, such a transfer can be justified economically.

2. An astute observer might conclude that an efficient interdiction campaign against a force such as the the Tactical Fighter Group (TFG) could be mounted by attacking the centralized avionics workshops at the main air base supporting the TFG.

3. Kim C. Beazley, "Address to RUSI by Minister for Defence", Proceedings of Second RUSI National Seminar: Pursuing Non-Nuclear Options, Journal of the RUSI, (Vol. 9, No. 2, June 1988), p. 15.

4. This work was prompted by the 1986 Defence Reorganization Act (Goldwater-Nichols), which required, *inter alia*, budget proposals conforming with priorities established in strategic plans and with the priorities established for the requirements of the unified and specified commands.

5. Major-General Coates, Assistant Chief of Defence Force - Policy, unpublished minutes ACPOL 1926/87.

6. Edward L. Warner, III, et al., The USAF in Support of U.S. National Security: Linking Strategy, Tasks, and Programs, WD-3575-1-AF, Prepared for USAF by RAND Corporation under Contract F49620-87-C-0008. 1987. Cited by permission of co-author.

7. Office of the President of the United States, National security Strategy of the United States, p. 3.

8. Recent seminars conducted by RUSI (Pursuing Non-Nuclear Options, 13-14 May 1988) and SDSC (Air Power Symposium, July 1986) have made major contributions to the development of defence thinking in Australia. The publication of the proceedings of these, and like seminars contributes significantly to the wider community understanding of strategic and international issues. The contribution of the Air Power Seminar in raising public awareness of Australia's Air Defence problems may have led to greater support for the acquisition of new capabilities such as air-to-air refueling, AEW&C, OTHR, and air and sea surveillance platforms and systems. (See Ball, Air Power: Global Developments and Australian Perspectives, and "Proceedings of Second RUSI National Seminar: Pursuing Non-Nuclear Options," Journal of the RUSI, Vol. 9, No. 2, June 1988.)

9. Cheeseman, Alternative Defence Strategies and Australia's Defence, p. 2.

10. Ibid., Cheeseman proposes nonmilitary alternatives involving the use of nonviolent actions against invading or occupying forces in a paramilitary Defence or Guerrilla warfare, or the use of nonviolent resistance (mass non-cooperation and so on) to harass occupying forces. Such strategies would be essentially an abrogation of the government's prime responsibility of defence of the nation.

11. Cheeseman provided such an input to the political process when he delivered his paper to the Liberal (conservative) Party of Australia (ACT Division) Defence and Foreign Affairs Committee Seminar under the title "Australia - Aligned or Neutral" on 13 August 1988.

12. The service chiefs are responsible for: commanding their services; providing professional advice to the CDF, via the COSC concerning the effective use of the combat elements of their services and recommending allocation of those assets; endorsing military plans for CDF approval; and providing, combat-ready elements to JFCs (including the raising, supplying, training and maintenance of those forces). Air Vice-Marshal I.B. Gration, "Employment of Air Power in Joint Operations", in Ball, Air Power: Global Developments and Australian Perspectives, p. 462.

13. In the Australian defence environment, the Maritime Commander (a Naval officer) can expect that for at least part of the time, large sections of the MPG (P3C Orion) will be assigned by the Air Commander (an Air Force officer) for

fleet support and area ASW tasking. This concept of a contractual relationship between operational commanders and professional force suppliers cuts across traditional service boundaries and may provide a greater degree of assurance of support for programs designed to enhance the capability of the MPG (perhaps at the expense of other Air Force or Navy programs).

14. See Baker, Chapter 5, pp. 3-11 for a basis for discussing these strategies.

15. These illustrative tasks has been derived from recent unclassified literature. The bulk of them have been taken from Ball's Air Power: Global Developments and Australian Perspectives. Chapters of particular relevance include "Air Power in the Defence of Australia: Strategic Aspects" by Air Marshal David Evans, "Air Power Strategy" by Air Marshal Ray Funnell, "Employment of Air Power in Joint Operations" by Air Vice-Marshal Barry Gration, "Air Power in the Defence of Australia" by Air Marshal Jake Newham, "Land-based Air Power in the Defence of Australia" by Air Vice-Marshal Ted Radford and Read Admiral Ian Knox, "Air Defence, Airspace surveillance and Control:Problems and Policies" by Air Commodore 'Tex' Watson, "Maritime Surveillance" by Rear Admiral Ian Knox and Air Commodore Tom O'Brien, "Air Support in the Land Battle" by Colonel Colin Brewer and Wing Commander Jack Lynch, "The Defence of Air Bases" by Colonel R. Bishop, and "The Future of Air Power in the Defence of Australia" by Desmond Ball. Other sources consulted were: AFR 23-17, Organization and Mission - Field: Military Airlift Command , Department of Air Force, Washington, GPO, 1 April, 1985, AFR 23-10, Organization and Mission - Field: Tactical Air Command, Department of Air Force, Washington, GPO, 14 April, 1980 and Warner, pp. 33 - 34.

16. General Peter Gration, "Address by CDF to: RUSI Seminar on Pursuing Non-Nuclear Options," Journal of the RUSI, p. 53.

17. Air Marshal David Evans has stated "The notion that the Jindalee (OTHR) will provide the necessary warning is pure deception ... airborne early warning aircraft are an essential element of an air defence system. Ball, "Air Power in the Defence of Australia: Strategic Aspects", p. 128.

18. Dibb, p. 66.

19. Ball, p. 495.

20. The MPG has a total of twenty aircraft. Not all aircraft are available for operational use due to maintenance requirements. To maintain one aircraft

continuously on-task--for example conducting ASW operations for an afloat commander--may require the use of three aircraft. This number will increase as transit distances to operational areas increase. A requirement to conduct more than a few such taskings rapidly decreases the Air Commander's use of the MPG.

21. Ball, Chapter 28.

NOTES ON CHAPTER VI (Pages 107 - 124)

1. Attributed to a speaker to the Air War College Class of 1989 when discussing the development of air power doctrine.

2. Taken from figure 3.3 of Cross, p. 86.

3. In practice, HQADF bids compete with single-service bids in the FSC forum during the annual development of the FYDP. In a joint force environment, under the strategy-to-tasks analysis, there should be few non-single-service joint proposals.

4. Cross, p. 87.

5. See Cross, p. 141. *et seq.* for a discussion of the necessity (as found in the UK and US) for political involvement at this level whenever critical decisions are to be taken.

6. Drawn from personal correspondence with Wing Commander David Schubert, 1988 AWC graduate, and now a staff officer of CAS's study team for the development of RAAF force doctrine.

NOTES ON CHAPTER VII (Pages 125 - 140)

1. Clausewitz, On War, p. 573.

2. Beazley, The Defence of Australia 1987, p. vii.

3. The RAAF Chief of Air Staff has directed that a publication outlining Airpower Doctrine for the RAAF will be published before the end of 1989. The work is being performed by the doctrinal centre referred to on p. 123.

4. Air Marshal Ray Funnell, "Air Power Strategy", in Ball, Air Power: Global Developments and Australian Perspectives.

5. See General William W. Momyer's Air Power in Three Wars, in particular Chapter II, "Command and Control of Air Power".

6. Baker, Chapter 2, p. 2.

7. Ibid., Chapter 8, p. 13.

8. Ibid., Chapter 8, 36 *et seq.* indicates that the following air power-related roles have been assigned. To the Air Commander: the planning and conduct of all air defence and associated air space control, the planning and conduct of strategic air tasks, the support of other Joint Force Commands, and the provision of forces for operations elsewhere as required. The roles of Maritime Commander involving air assets are: maritime operations and security of offshore territories. The roles of Land Commander involving air assets are: land operations and covert operations.

9. See the Air War College Research Report of Wing Commanders Peter Criss and David Schubert, "Application of Conventional Small Force Air Power in Australia's Unique Environment," for an overview of the components required to create and support a balanced air force.

NOTES ON CHAPTER VIII (Pages 141 - 148)

1. The RAAF Plan - 1988, RAAF Publication, 1988, p. 11.

2. Singapore's fall in 1942 serves as a useful example of misapplication of warning time. Then, the forces necessarily required for the protection of Singapore itself, the naval fleet and maritime patrol aircraft were conspicuously absent. Thus it was inevitable that Singapore, not a bastion of defence but a base for supporting forces protecting British interests, would fall.

3. Vice-Admiral Michael Hudson, "Singapore's fall is a lesson for today", Sydney Morning Herald, 15th February 1989, p. 15.

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GLOSSARY

AAP	Australian Air Publication
ACAUST	Air Commander Australia
ACOPS	Assistant Chief of Defence Force (Operations)
ACPOL	Assistant Chief of Defence Force (Policy)
ADF	Australian Defence Force
ADIZ	Air Defence Interception Zone
AEW&C	Airborne Early warning and control
AEW&C	Airborne Early Warning & Control
AGM	Air to Ground Missile
AIM	Air Intercept Missile
ANZAC	Australian New Zealand Army Corps
ANZUS	Australia New Zealand United States
AOB	Air Order of Battle
AOR	Area of responsibility
ARA	Australian Regular Army
ASADPO	Australian Strategic Analysis and Defence Policy Objectives
ASEAN	Association of South-East Asian Nations
ASW	Anti-submarine warfare
ASuW	Anti-surface Warfare
ATS	Authorized Terminal Strength
ATC	Air Traffic Control
BAI	Battlefield Air Interdiction
C2	Command and Control
CAS	Chief of Air Staff

CAS	Close Air Support
CCP	Chief of Capital Procurement
CDF	Chief of the Defence Force
CG	Consultative Group
CGS	Chief of General Staff
CNS	Chief of Naval Staff
COSC	Chief of Staffs Committee
DC	Defence Council
DFDC	Defence Force Development Committee
DOCCC	Defence Operational Concepts and Capabilities Committee
DSDC	Defence Source Definition Committee
FASFDA	First Assistant Secretary Force Development and Analysis
FASSIP	First Assistant Secretary Strategic and International Policy
FDA	Force Development and Analysis (Division)
FSC	Force Structure Committee
FPDA	Five Power Defence Arrangements
FYDP	Five Year Development Programme
FYRP	Five Year Rolling Programme
GDP	Gross Domestic Product
HARM	High-speed Anti-Radiation Missile
HQADF	Headquarters Australian Defence Force
JFC	Joint Force Command(er)
JFHQ	Joint Force Headquarters
JOPES	Joint Operational Planning & Execution System

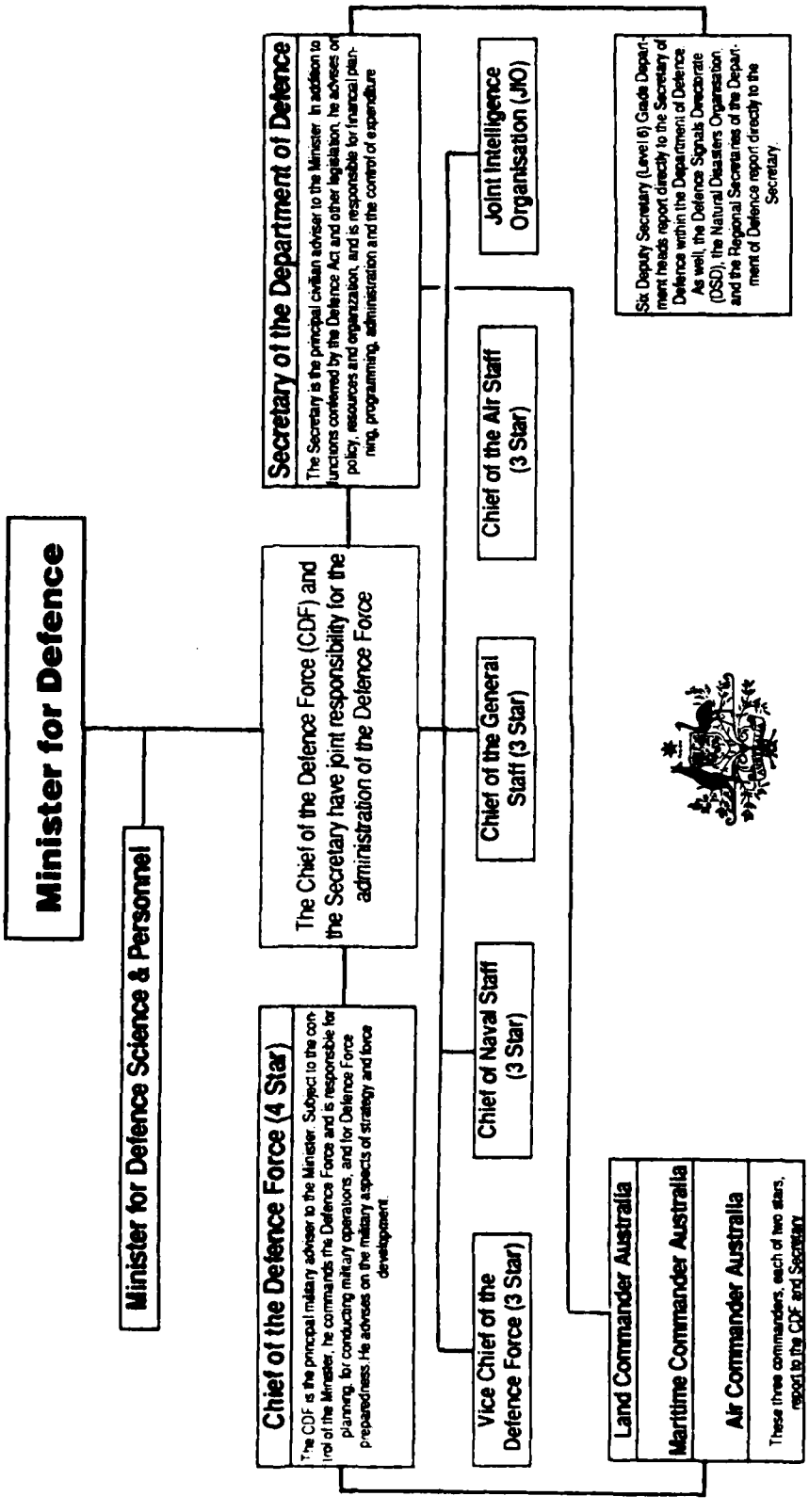
JPCFADT	Joint Parliamentary Committee on Foreign Affairs, Defence and Trade
JSSC	Joint Services Staff Course
JSPC	Joint Strategic Planning Committee
LCAUST	Land Commander Australia
LRMP	Long-range Maritime Patrol (Aircraft)
MCAUST	Maritime Commander Australia
MPG	Maritime Patrol Group
NAB	National Assessments Board
NORCOM	Northern Command
ODF	Operational Deployment Force
OLM	Operational Level Maintenance
ONA	Office of National Assessments
OTHR	Other-the-horizon RADAR
POL	Petroleum, Oil and Lubricants
POM	Program Objective Memorandum(a)
PPB(S)	Planning, Programming and Budgeting (System)
RAAF	Royal Australian Air Force
RAN	Royal Australian Navy
RAND	Research and Development (Corporation)
RNZAF	Royal New Zealand Air Force
RAAFSC	Royal Australian Air Force Staff College
RUSI	Royal United Services Institute
SB	Strategic Basis
SIP	Strategic and International Policy (Division)
SRG	Strike Reconnaissance Group
TFG	Tactical Fighter Group

USAF	United States Air Force
VCDF	Vice-Chief of the Defence Force
WWI	World War One
WWII	World War Two

INDEX

Appendix 1

Australian Defence Higher Organisation



Source: Defense & Foreign Affairs, August 1988, p. 34.

APPENDIX 2 - CURRENT FORCE STRUCTURE OF ADF AIR COMPONENT

STRIKE/RECONNAISSANCE FORCE GROUP: (SRG)

23 x F-111 aircraft, 2 squadrons
(15 x F-111C, 4 x F-111A, 4 x R/F-111C)
Weapons/systems: Pave Tack, Harpoon, HARM, GBU-15, GBU-12.

TACTICAL FIGHTER GROUP: (TFG)

75 x F/A-18
4 x Winjeel (FAC)
3 squadrons
14 x MB-326H Macchi
Over-The-Horizon-Radar (OTHR)
Weapons: AIM-7M, MRAAM, AIM-9M

MARITIME RECONNAISSANCE GROUP: (MRG)

2 squadrons, 20 x P3C Orion

TRANSPORT SUPPORT GROUPS:

2 squadrons of C-130E/H
1 squadron of 6 x B-707 (4 to be tanker aircraft)
1 squadron of 4 x CC-08 Caribou, 4 x UH-1B Helicopter
1 squadron of 17 x CC-08 Caribou
2 squadron with 30 x UH-1B/H Helicopter
1 VIP squadron

TRAINING SUPPORT GROUPS:

66 x PC-9 Pilatus (60 to be delivered)
82 x MB-326H Macchi
8 x HS-748 Navigation trainer
48 x CT-4A Airtrainer
18 x Squirrel Helicopters

ARMY BATTLEFIELD SUPPORT:

8 x UH-60 Blackhawk Helicopters

Source: RAAF Plan 1988.

Note: This list does not include naval force organic assets.

Operational Objectives and Tasks

Defeat enemy air attack
Destroy enemy aircraft in the air at long-range
Destroy enemy aircraft in the air in
area of land and naval operations

Deny enemy the opportunity to generate air assets
Destroy enemy aircraft on the ground
Destroy enemy airbases and supporting infrastructure

Provide battlefield air interdiction
Destroy enemy armour
Destroy enemy artillery
Conduct tactical reconnaissance

Destroy enemy logistic support infrastructure
Destroy or damage enemy reserve or follow-on forces
Destroy or damage supply and logistic centres
Destroy bridges, ports, choke points

Degrade enemy capability to use air defences
Destroy enemy air defence radar and C2 sites
Destroy enemy SAMs
Provide self- and mutual defence for own aircraft

Degrade enemy's command and control infrastructure
Destroy or damage C2 system
Conduct strike operations to disrupt enemy communications

Defeat enemy ground forces engaged with own forces
Destroy enemy land forces near own troops
Damage or destroy enemy artillery and SAMs
Destroy enemy land vehicles

Defeat enemy ground follow-on forces
Destroy enemy land forces on ground
Destroy inbound enemy land air and sea transports
Destroy enemy land force rear infrastructure

Deny enemy use of electromagnetic spectrum
Suppress enemy use of jamming and deception
Destroy enemy EW equipment

Damage or sink enemy surface forces
Damage or destroy naval surface vessels at sea, in focal
areas or in port by maritime strike or mining

Destroy enemy subsurface forces
Conduct area anti-submarine warfare (ASW)
Conduct close ASW support to afloat maritime commander
Conduct hunter-killer operations

Conduct offensive and defensive mining
Offensive and defensive mine laying
Conduct mine-hunting operations
Conduct mine-sweeping operations

Support Objectives and Tasks

Provide inter- and intra-theatre transport support
Transport forces and supplies to area of operations
Transport forces and supplies within area of operations
Insert, support and extract special forces
Provide air evacuation of casualties
Directly insert and retrieve own troops into battle

Provide at-sea air support to naval forces
Conduct vertical replenishment
Provide OTH targetting
Provide tactical reconnaissance
Conduct point and area anti-air warfare

Repel attack against own forces and airbases
Provide own low-level air defence (AD)
Provide early warning of enemy air attack
Detect identify and attack low-level aircraft
Surveill likely attack routes
Detect and counter the launch of enemy missiles
Provide deployed mobile AD radars and SAMs
Reduce enemy damage by defensive measures

Deny enemy opportunity to intrude
Conduct open ocean surveillance (including shadowing)
Conduct Over-The-Horizon (OTH) detection

Conduct intelligence-gathering
Conduct open ocean surveillance
Conduct OTH wide area detection
Conduct electronic intelligence gathering

Conduct logistic support
Provide adequate supply of POL and munitions
Provide logistic support of own forces in operational area

Provide effective C2 and communication
Provide effective tactical control with fast, secure communications
Provide adequate staff planning facilities
Provide radar detection and communication facilities in operational areas
Conduct meteorological and hydrographic support
Provide weapon support terminal control systems
Conduct airspace control

Provide air-refuelling capability
Extend range of offensive strike aircraft
Extend time-on-station of counter-air, CAS, BAI and support aircraft

Provide combat air rescue